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AN APPROACH TO RECOVERY AND REHABILITATION

OF THE SUDANO-SAHELIAN REGION

United Nations Sahelian Office
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New York

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INTRODUCTION

1. The drought which has adversely affected the Sudano-Sahelian region of Africa for several years assumed catastrophic proportions until 1974.

2. Insufficient rainfall, with the consequent failure of crops and deterioration of herds has resulted in tragic human suffering, in massive economic and social disruptions and in great damage to an already fragile ecological system. The problems which the region now faces and will face for many years to come, present to the Governments of the drought-affected countries and to the international community a great challenge. The effort to meet this challenge has already been extensive, but overcoming the present emergency and achieving less precarious conditions of life for the people of the region will require determination, creativity and vast resources.

3. The United Nations system, under the leadership of the Secretary-General, in co-operation with many individual Governments, inter-governmental and non-governmental organizations, institutions, groups and interested individuals and, above all, the Governments of the drought-affected countries of the region and the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) which they have constituted, has undertaken a number of efforts to counteract this catastrophe.

4. The present document, prepared by the United Nations Sahelian Office (UNSO), the unit of the United Nations Secretariat having responsibility for co-ordinating the efforts of the United Nations system in regard to the medium-term and long-term needs caused by the drought, has been designed to help meet the following three objectives:

(a) To summarize and analyse the relevant facts and to provide a review of certain developmental and ecological problems of the Sudano-Sahelian region;

(b) To offer some basic considerations which the Governments of the drought-affected Sudano-Sahelian countries may wish to take into account in the formulation of their recovery and rehabilitation programmes and from which members of the international community could benefit in their assistance activities;

(c) To outline some relevant major policy issues and offer suggestions which the Governments of the Sudano-Sahelian region may wish to consider in formulating their drought-related programmes.

5. The document is divided into four parts:

Part I briefly describes the problems of the present drought and its setting, including its history and consequences, and the chronology of relief, recovery and rehabilitation measures taken by the United Nations system to alleviate them.

Part II examines the economic conditions of the region, including capabilities and constraints which should be considered in the recovery and rehabilitation process.

Part III surveys the national development plans of the region and the recovery and rehabilitation measures proposed by the Permanent Inter-State Committee (CILSS).

Part IV sets forth principal objectives of the recovery and rehabilitation programme, outlines related basic considerations, and raises policy issues for consideration by the drought-stricken Sudano-Sahelian countries.

I. THE DROUGHT AND ITS SETTING

A. BACKGROUND

6. At his 7 March 1974 press conference, the Secretary-General of the United Nations, following a visit to several of the drought-stricken countries of the Sudano-Sahelian region, once again called international attention to the tragic suffering and continuing emergency caused by the drought in this area:

> "I have seen with my own eyes the toll in human suffering, the depletion of resources and the setback to development plans caused by this terrible drought.
>
> It is hard to imagine the magnitude and scope of the disaster that has afflicted this area of the world, in which climatic change has precipitated a series of human tragedies.
>
> The worst is definitely not over. There are thousands of people dying, especially older people and children who are not able to walk down to the south. They lost all their cattle, and the cattle were all they had.
>
> Although great efforts have been made by the international community, it will take a bold international effort of enormous scope both to mitigate the present suffering and to provide for a better future."[1/]

7. The drought described by the Secretary-General has most severely affected seven countries of West Africa, namely Chad, The Gambia, Mali, Mauritania, the Niger, Senegal and the Upper Volta, covering a geographical area of close to five and a half million square kilometres, with a total population of about 23.6 million[2/] of which over six million (between 6 and 6.5 million) live in the Sudano-Sahelian region. Some 90 per cent of the population make their living from the land as sedentary farmers or nomadic herdsmen.

1/ Press Release SG/SM/1964, SG/SM/1965.

2/ 1970 estimates.

8. The area is composed of three ecological zones, the Sub-Saharan Zone, the Sahelian Zone and the Sudanian Zone. The latter two zones, which lie roughly between 10° and 20° north latitude and between the 600mm and 100mm isohyets, have been the most severely affected by the drought.

9. The Sub-Saharan zone usually receives less than 100mm average annual rainfall and is characterized by sandy and pebbly soil with sparse natural vegetation. Limited crops of cereals and date palms are grown near outcroppings of the phreatic layer. The population consists of nomadic herdsmen who depend on animal husbandry for their livelihood. This nomadic population exists on a high protein diet which is nevertheless unbalanced and low in calories.1/

10. Stock raising in the region mainly takes place in the Sahelian zone, located between the 100mm and 500mm isohyets. The thorny and sparse vegetation of the area becomes covered with grasses during periods of adequate rainfall thus allowing extensive grazing; it is estimated that two-thirds of the livestock in the region graze in the Sahelian zone. There is also some seasonal farming throughout the zone and some permanent farming in the irrigable areas near the banks of the Senegal, Niger and Chari Rivers, near their tributaries and on the banks of Lake Chad.

11. The Sudanian zone, between 500mm and 600mm isohyets, is populated by both sedentary and semi-nomadic peoples; pastureland is more abundant and of better quality in this zone, where there are low wetlands and shrubby savannas. The diet contains a wider variety of food than in other parts of the region since exchanges of food among animal breeders, sedentary farmers and fishermen are customary. Nevertheless, 60 per cent of the average caloric intake still consists of starches (millet, sorghum and rice).

12. Generally, livestock raising is carried on from the 100mm isohyet south to the northern limit of epizootic diseases such as tryponasomiasis. In certain fertile valleys, particularly in Upper Volta and countries to the south, the presence of the parasitic filarial worm, Onchocerca volvulus, which causes the blinding and debilitating disease known as "river blindness" or Onchocerciasis, has discouraged farming.2/ Spurred by population pressure and exhausted soils, sedentary farming, which was once limited to the Sudanian and lower Sahelian zones, has progressively expanded north.

1/ Public Health Sector Analysis, by the World Health Organization, 4 December 1973, p. 2 (ST/SSO/15).

2/ "Onchocerciasis Control in the Volta River Basin Area", Report of the Preparatory Assistance Mission to the Governments of Dahomey, Ghana, the Ivory Coast, Mali, Niger, Togo and Upper Volta; Report by UNDP, IBRD and WHO. Geneva 1973, CCP/73.1.

13. Throughout the region there is a rainy season, generally extending from June to October, with from 20 to 60 days of rainfall. The maximum rains usually occur during the month of August. The rest of the year is dry and much of it is subject to a north-east wind known as the Harmattan. During this period, the humidity level is generally very low. The extreme temperatures range from 9°C in January to 45°C in the early summer.

14. The land-locked states of Chad, Mali, Niger and Upper Volta are among the least developed in the world, having a per capita GNP level of $100 per annum or less. The rate of growth of GNP for the countries of the region as a whole during the 1960s was roughly one half their rate of population growth.

15. It is against this general background that the present drought has occurred. The meteorological data for the region are inadequate for detailed studies of droughts as most of the stations have been in operation for less than thirty years; it is however clear from these and other data that droughts have been a recurrent phenomenon. Oral tradition, explorers' accounts and colonial administration records over the past 140 years indicate that during this time there have been repeated periods of exceptionally dry and moist weather, varying in severity and duration. Two recent periods of relatively high rainfall occurred between 1950 and 1954 and from 1961 to 1964. There is also some evidence that during such alternatively moist or dry periods, the population of the region was able to adapt itself to the climatic changes.

16. During past periods of relatively plentiful rainfall, vegetation flourished and the general health of the population improved.[1/] Farming spread northwards and natural groundcover was cleared for the expansion of cultivable land. Nomadic herdsmen, encouraged by the availability of forage, increased the size of their herds and gradually moved northward in search of new grazing land. Some of the breeders, however, elected to remain, thus breaking with their traditional lifestyle and thereby increasing the sedentary population.

1/ See "Towards a Strategy for Development in the Sahelian and Sudano-Sahelian zones", SSO series ST/SSO/1/Rev.1, 4 December 1973.

17. Besides being a source of livelihood, livestock became a source of financial security and social standing. Cattle became the favoured livestock despite their relatively poor ability to adapt to the harsh environment and despite the fact that they require considerably more regular supplies of water and fodder than the less prized dromedaries, sheep and goats.

18. These changes - both climatic and man-made - gradually resulted in a severe disruption of the ecological balance of the region. Trees and grass cover were damaged as herds grew in size, overgrazing the available pastureland. Soils became exhausted by over-intensive use, thus accelerating erosion. In consequence, desertification has been spreading throughout the Sudano-Sahelian region.

19. From 1966 to 1973 the annual rainfall has in most places been below the long-term averages, reducing agricultural productivity and further accelerating soil deterioration and erosion. By 1968 the effects of the drought were being felt by the entire population of the Sudano-Sahelian region.

20. Although it is difficult to compare the severity of the latest drought with former dry periods, it would seem that it has been more disruptive and potentially more far-reaching than any previously recorded.

B. CONSEQUENCES

21. The environmental effects of the drought, compounded by certain human activities, are so serious that only with massive effort and a return of normal rainfall will the agricultural lands ever recover their desired level of productivity. In some areas, the soil has become so hardened and eroded that young plants, even if sprouted, cannot survive. Annuals in particular failed to seed and therefore disappeared. As the land has become increasingly parched and subject to erosion, a most damaging process

has occurred: desertification has advanced at a rapid rate throughout the region.[1/]

22. By mid 1974, the water levels in the Senegal, Niger, and Chari Rivers were extremely low. The year 1972 marked the first time in 60 years that these rivers totally failed to flood their banks. During regular low water periods the average rate of flow for the Senegal is 60 cubic millimetres per second and 50 cubic millimetres per second for the Chari. By 1973 both rivers were reduced to only a few millimetres per second, and in Niger, the Niger River was at its lowest level in decades. The water levels of the permanent lakes of the region are similarly reduced. In 1973, Lake Debo and Lake Friti were dry, and the water level in Lake Chad was so low that large expanses of sand became visible.

1/ Extensive discussions are taking place at present concerning the advance of the desert southwards from the Sahara. This subject is treated at some length, inter alia, in the recent FAO/SIDA Report on the Sahelian Zone (FAO, Rome, 1974, FAO/SWE/TF117). The FAO/SIDA mission which visited several countries of the region at the end of 1973, noted that the "impoverishment of plant and soil resources has indeed occurred over the whole extent of the Sahelian lands and not merely on a very vague front separating the Sahelian zone from the Sahara" (page 23). The mission pointed out that "what it was seeing throughout the Sahel, especially in the interior and often very far away from the 'desert front' was the creation of local, scattered deserts, started by man and the result of destructive rural land use". The mission concluded that this desertification consitutes "the real problem of the Sahelian zone, because it reached alarming proportions" (pages 79 and 80 of the report).

The findings and conclusions of the mission have a direct bearing on a number of related issues, including the question of the future forestry policy for the area; this is particularly true of proposals for the creation of the so-called Sahelian "green front". Rather than envisaging large-scale operations of this kind extending over the entire zone, the mission, in the light of its findings, recommended "local interventions, less expensive and more economical" (page 70).

Of forestry policy in general, the FAO/SIDA mission recalled that it had never been demonstrated that "reforestation, even on a very big scale, constitutes an effective method, or above all an economic method, of manipulating the macro-climate, or more especially the rainfall, in places where an improvement is wanted" (page 79). The mission expressed itself strongly in favour of giving priority to the productive aspects of the forest with a view to satisfying the needs of the people for forest products. (For a more detailed discussion of the subject, see pp. 41, 70, 79, 80 and 81 of the FAO/SIDA report).

23. For the majority of the population, the effects of the drought and the disruption of the delicate balance between man and the environment, have been devastating. Over a fourth of the population of the region are directly affected by present conditions. Although precise figures are not available, indeed unobtainable under the circumstances, certainly there has been an extensive and tragic loss of life and broad sections of people are today suffering from malnutrition and disease. Large numbers of nomads have migrated south with their herds, in search of food and water. Many of them have concentrated around watering places where, without food and sanitation, they are exposed to disease and death.

24. Literally hundreds of thousands of animals which provided milk and meat to the nomadic populations have perished, more often from hunger than from thirst. The long distances which herds must traverse to find pastures, weakened most livestock, especially cattle. Often those animals which managed to stay alive have become so weakened that their rate of reproduction has declined.[1/]

25. The concentration of nomads and what remains of their herds in the southern areas of the region has created social tensions between livestock breeders and sedentary farmers. Frequently, nomads are found in camps on the outskirts of towns or villages where sanitation and medical conditions are inadequate.

26. As already mentioned, the agricultural economy of the region was crippled by the drought as harvests continued to fail and livestock to die. The rain which fell during 1972 and 1973 was too sparse and unevenly distributed to permit agricultural recovery, while the need to import large quantities of food to overcome critical shortages has worsened the chronic imbalance of payments.[2/] Exports of cattle and other livestock have declined drastically, both quantitatively and qualitatively. Once they finally reach the export markets, most animals, bony and toughened from their struggle to survive, bring very low prices. Capital has been spent on seeds that have failed to germinate, and reserves of grain, including seed stocks, have largely been exhausted.

1/ Livestock Sector Analysis, "Survey of the Range Recovery and Animal Production Sector in the Sudano-Sahelian Zone", ST/SSO/10, 9 November 1973.

2/ "Foreign Trade, Outline Analysis of Foreign Trade Problem Area, Sudano-Sahelian Zone", United Nations Conference on Trade and Development, ST/SSO/12, 21 November 1973, p.1.

27. Most of the small, secondary processing industries which depend on agricultural production for raw materials have had to suspend their operations, increasing the already existing unemployment. In urban centres, where thousands of nomads and farmers take refuge to seek relief from the intolerable conditions, unemployment has soared.

28. Such conditions will undoubtedly leave their imprint on those who survive the drought, especially the children.[1/] Indeed, it is not possible to calculate the present and future impact of this tragedy on the populations of the affected countries.

29. Although this report deals primarily with the conditions that affect the West African countries in the Sudano-Sahelian region, similar conditions exist across the entire arid and semi-arid zones of Africa. In considering the type of recovery and rehabilitation measures which might be taken to mitigate the effects of the drought in the Sudano-Sahelian zone, the application of these measures to similarly affected areas should be borne in mind.

C. THE RESPONSE TO DATE

30. By 1972 the deteriorating situation in Chad, Mali, Mauritania, Niger, Senegal and Upper Volta was recognized as having reached disastrous proportions.[2/] In September 1972, the Food and Agriculture Organization and the World Food Programme (FAO/WFP) alerted the world to an acute emergency in West Africa arising from the continous nature of the drought. Exceptionally poor harvests in the region during 1972 prompted the Governments of the countries concerned to intensify their own efforts to meet the growing crisis. Steps were also taken to seek an increase in food aid from the World Food Programme and from other sources.

1/ "Public Health" by the World Health Organization, ST/SSO/15, 4 December 1973.

2/ Note by the Secretary-General and Report by the Director-General of FAO, Aid to the Sudano-Sahelian populations threatened with famine, The Emergency Relief Operation of the United Nations System, E/5372, 7 July 1973.

31. In February 1973, the Director-General of FAO approved the highest single contribution of food aid in the history of the World Food Programme, on the recommendation of its Executive Director. Included in this initial $US 7.7 million donation[1] were some 50,000 metric tons of food grains and assistance to meet internal transport costs.

32. Subsequently, on the basis of the report of an FAO mission (January 1973) aimed at assessing the livestock situation in the region, a number of FAO, WFP and United Nations Development Programme (UNDP) representatives were constituted as a field group for exchange of information and mutual consultation regarding livestock problems. Another joint United Nations/UNDP/FAO mission was sent to the region in early 1973 to assess water problems and to make recommendations for the improvement of the existing water supply and its better utilization. On the other hand, emergency aid, as well as proposals for medium- and long-term assistance in the agricultural sector, were continuously being considered by an FAO Inter-Departmental Working Group created in February 1973 in Rome.

33. At a meeting of Ministers held in Ouagadougou, Upper Volta, on 26 and 27 March 1973, the Governments of Mali, Mauritania, Niger, Senegal and Upper Volta officially declared the region a disaster area. The Ministers who attended this meeting further resolved to establish the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS), in order to co-ordinate initiatives taken by the Governments concerned to combat the effects of the drought.[2] Resolutions IV and V adopted at the meeting offer a programme of united, sub-regional activities, including climatic studies, and "...it was decided, inter alia, to appeal to friendly countries and to international bodies to assist in the achievement of the objectives set by the six countries."

34. From 7-20 April 1973, Minister Raymond Scheyven, former Belgian Minister of Economic Affairs and Special Representative of the Director-General of the

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1/ By the end of 1973, WFP emergency food aid to the Sahelian countries had reached $US 9.5 million. "WFP Announces Food Aid to Help Rehabilitate Sahelian Drought Areas", Press Release FAO/2473, 21 February 1974.

2/ Although not represented at the Ministerial level at this meeting, Chad is recognized as an original member of the Permanent Inter-State Committee. At a meeting of the Committee on 19 December 1973, The Gambia was voted into membership.

Food and Agriculture Organization, headed a mission to the region in order to examine the situation and to suggest the steps required to alleviate the crisis. Participants in the mission included representatives from Governments of the drought-affected countries, donor Governments, the European Development Fund (FED), the International Bank for Reconstruction and Development (IBRD) and WFP.

35. In the light of Minister Scheyven's report[1] and other information confirming the danger of imminent famine and the risk of extinction of livestock herds, the Director-General of FAO issued an appeal on 10 May 1973 for assistance from the international community. The appeal called for immediate cash contributions amounting to $US 15 million including funds for animal feed and vaccines, seeds and well-deepening equipment, in addition to food aid.[2] Minister Scheyven subsequently visited a number of potential donor Governments and organizations to stimulate and encourage assistance to the drought-affected countries of West Africa.

36. While Minister Scheyven was in New York to consult with the Secretary-General, the Economic and Social Council, on 18 May 1973, adopted resolution 1759 (LIV) which, inter alia, called on Member States to support the appeal of the Director-General of FAO for emergency assistance and called upon the Secretary-General "...to organize as soon as possible, in collaboration with the organizations of the United Nations system...each within the framework of its terms of reference, the necessary assistance action in order to respond to the requests of the Governments of this region with regard to their medium-term and long-term needs."[3] Responding to this resolution, the Secretary-General consulted with the Director-General of FAO in Rome on 20 May 1973, and it was decided that FAO should serve as the focal point within the United Nations system for emergency relief operations and that the Office of the United Nations Under-Secretary-General for Political

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1/ "Report of the Mission of Messrs. Scheyven, Mensah and Reyntjens", 7 to 20 April 1973, Inter-Departmental Working Group on Sahelian Problems, WS/D8795, 4 May 1973.

2/ "FAO Appeal for Emergency Relief Needs", Rome, 10 May 1973, 73-43695.

3/ E/RES/1759 (LIV) of 18 May 1973, para. 5.

and General Assembly Affairs would have similar responsibilities for medium-term and long-term recovery and rehabilitation activities in the region.[1/]

37. As a result, the FAO established in Rome the Office for the Sahelian Relief Operations (OSRO) to carry out the emergency activities. OSRO's operations have concentrated on five major fields: (a) monitoring food shipments and co-ordinating overland movements and airlifts of food grains; (b) providing seeds; (c) supplying animal feed and vaccines; (d) co-operating with other members of the United Nations system in other critical fields, such as health; and (e) serving as a central point for the collection and dissemination of information on the emergency relief efforts.

38. In accordance with the provisions of the Economic and Social Council resolution 1759 (LIV) of 18 May 1973 dealing with medium-term and long-term assistance, a meeting on this subject was convened at Geneva at the Palais des Nations by the Secretary-General on 28-29 June 1973.[2/] This meeting, which was chaired by the Under-Secretary-General for Political and General Assembly Affairs, included representatives of all interested bodies of the United Nations system, a number of Governments, including countries affected by the drought, and non-governmental organizations. Among the recommendations adopted at this meeting and subsequently approved by the Secretary-General was the establishment of a small, temporary staff (the Special Sahelian Office) to "serve as the focal point for the co-ordination of efforts of the United Nations system for mid- and long-term assistance to the affected countries" and to undertake "a technical preparation process ... with a view to ensuring a coherent, integrated and co-ordinated response by the international community to requests that may be anticipated following elaboration of needs by the Permanent Inter-State Committee".[3/] In resolution 1797 (LV) of 11 July 1973[4/] these recommendations were endorsed by the Economic and Social Council.

1/ "Secretary-General names FAO as focal point for aid to drought-stricken Sudano-Sahelian Zone in Africa", Press release SG/1773, FAO/2403, 25 May 1973.

2/ "Final Report on the meeting on the Sudano-Sahelian Mid- and Long-term Programme", ST/SSO/7, 30 October 1973.

3/ E/5374 of 5 July 1973, Annex.

4/ E/RES/1797 (LV) of 11 July 1973, para. 4.

39. On 19 July 1973, the Permanent Representatives of Chad, Mali, Mauritania, Niger, Senegal and Upper Volta to the United Nations requested the inclusion in the provisional agenda of the twenty-eighth session of the General Assembly of an item concerning aid to the Sudano-Sahelian population threatened with famine (A/9092); the General Assembly decided to include the item on its agenda at the 2123rd plenary meeting, on 21 September 1973.

40. On 9 October 1973, His Excellency President Sangoule Lamizana of Upper Volta addressed the General Assembly.[1/] In addition, the Assembly had before it a note by the Secretary-General describing the actions that had been taken or proposed by the United Nations system in dealing with the effects of the drought.[2/] The note also contained, in annex, documents of the meeting of the Permanent Inter-State Committee (CILSS) held from 31 August to 12 September 1973, which included 123 proposed priority programmes and projects requested by the Committee with a view to overcoming the effects of the drought. On 10 and 11 October 1973, the Second Committee of the General Assembly considered the item and on 17 October, the General Assembly adopted a comprehensive resolution 3054 (XXVIII) on the subject.[3/] The Assembly also adopted a special resolution concerning the aid to the Sudano-Sahelian populations threatened with famine.[4/]

41. Since the middle of 1973, FAO has co-ordinated the activities of the United Nations system in connexion with the continuing emergency. For this purpose, OSRO maintained a field office in Ouagadougou, Upper Volta, to assist in the transport and delivery of emergency relief supplies. From 24 September to 15 October 1973, FAO sponsored a Multi-Donor Mission to the region to assess the total food aid required for 1974.[5/] The rainfall in 1973 had again been inadequate, and it was estimated by this mission that a minimum of 450,000 tons of cereals and 60,000 tons of protective foods would be needed

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1/ A/PV/2145.

2/ A/9178 of 5 October 1973.

3/ A/RES/3054 (XXVIII) of 17 October 1973.

4/ A/RES/3153 (XXVIII) of 14 December 1973.

5/ "Summary report of the multi-donor mission to assess the food aid necessary in 1973-4 for the six drought-stricken Sahelian countries (Chad, Mali, Mauritania, Niger, Senegal and Upper Volta)", November 1973.

from external sources.[1] On 26 November 1973, the Secretary-General and the Director-General of FAO issued a joint appeal for the cereals, protective foods and cash required to support 1974 emergency operations in the drought-affected region.

42. In February 1974, the Secretary-General personally visited a number of drought-affected countries where he had discussions with high-level government officials concerning the needs of their countries and the role which the United Nations system could play in meeting them. On 21 February, the Secretary-General met with Ministers from the Sudano-Sahelian region and with other officials associated with the Permanent Inter-State Committee (CILSS) at a specially convened meeting of the Committee. On that occasion, he appealed once again for additional emergency assistance to the Sudano-Sahelian region.[2]

43. During the course of 1974, the situation in the Sudano-Sahelian region was considered by the Economic and Social Council at its fifty-sixth and fifty-seventh session.

44. At its fifty-sixth session, the Council had before it a report by the Secretary-General[3] concerning the progress achieved in regard to medium-term and long-term aid programmes; on 14 May 1974, the Council adopted resolution 1834 (LVI) in which, inter alia, it requested Governments, intergovernmental and non-governmental organizations to redouble their efforts and provide a greater volume of assistance to meet urgent middle-term and long-term needs of the countries concerned.

45. At its fifty-seventh session, the Economic and Social Council considered another progress report by the Secretary-General.[4] The Council, after having considered the report, adopted a comprehensive resolution on the subject[5] in which it, inter alia, noted with satisfaction the role

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1/ At the 17th session of the FAO Conference held in Rome in November 1973, representatives of the countries visited by the Multi-Donor Mission stated that, due to inadequate rains, harvests were below the expectations reported by the Mission, and that the total requirement for cereals could reach 1.2 million tons.

2/ Press Release SG/SM/1960.

3/ E/5457 of 25 February 1974.

4/ E/5554 of 28 June 1974 and E/5554/Corr.1.

5/ E/RES/1874 of 16 July 1974.

played by the Office for the Sahelian Relief Operations of the Food and Agriculture Organization of the United Nations, as well as by the United Nations Special Sahelian Office, and urged the United Nations agencies and the international community as a whole to intensify their efforts towards the achievement of the objectives of the relief, recovery and rehabilitation programmes.1/

46. The emergency relief activities organized by FAO, continued in 1974 with unrelenting intensity. By the end of August 1974, the total availability of food stood at over 1.1 million tons, including 287,000 tons of commercial imports; 784,000 tons had been delivered to recipient countries and 129,000 tons were at that time in transit in ports and railheads; shortage of transport in recipient countries constituted a major problem.

47. By the same time, the pledges of FAO in response to the joint appeal made by the Secretary-General and the Director-General of FAO on 26 November 1973 amounted to $US 9,779,358.

48. One of the areas of the world least able to withstand an environmental catastrophe has been ravaged by one of enormous magnitude. With the majority of the population making their livelihood in agriculture, the deterioration of the environment in the Sudano-Sahelian region has had a severely detrimental impact on the lives of all the inhabitants of the region and on its overall economic and social situation.

49. For their part, the Governments of the affected countries have taken major initiatives to overcome the consequences of the drought. Poorly endowed with natural resources, they will require the full support of the international community, for technical, financial and organizational assistance to meet drought-related problems for many years to come.

50. So far, the response of the international community has been positive. However, it should be realized that the emergency relief actions represent but the first stage in a long and arduous process towards full and long-lasting recovery and rehabilitation of the Sudano-Sahelian region.

1/ The Council also adopted resolution 1878 (LVII) of 16 July, dealing with the situation in the Sudano-Sahelian region and assistance to the drought-stricken areas of Ethiopia. In that resolution, the Council, inter alia, noted the activities already undertaken by various organs of the United Nations system, expressed its conviction of the need for a well co-ordinated inter-disciplinary approach to the drought problem in Africa; and requested the Secretary-General and all organizations of the system concerned vigorously to pursue their activities and efforts towards a broad, system-wide attack on the drought problem. Furthermore, the Council adopted resolution 1876 (LVII) of 16 July, on assistance to the drought-stricken areas of Ethiopia.

II. THE SUDANO-SAHELIAN ECONOMY AND ITS PROBLEMS

A. THE ECONOMIC BACKGROUND

1. National economies

51. In 1970, the population of the Sudano-Sahelian countries amounted to approximately 23.6 million, of which about one-fourth lived in the Sudano-Sahelian zone. The annual population growth rate ranged from 1.7 per cent in The Gambia to 3.3 per cent in Niger during the decade of the sixties.[1/] It is expected that by 1980, the population of Chad, The Gambia, Mali, Mauritania, Niger, Senegal and Upper Volta will number about 31 million. Some 90 per cent of the population is presently engaged in agricultural and livestock production. The importance of the agricultural sector in the economy can be seen in Annex, tables 4 and 8.

52. The overriding physical constraint is the aridity of the region. The known mineral resources are scarce and tend to be located far from established population and communication centres. Above all, the Sudano-Sahelian countries lack any significant energy resources, in particular, petroleum. For historical reasons, the transportation network is poorly endowed with north-south routes, making internal communications especially in the case of the land-locked countries difficult.

53. While the annual output of goods and services (GDP) of the economies of the region has shown varied growth rates during the sixties, the per capita growth rate has averaged 1.2 per cent. Since the increase in population has been estimated at an average of about 2.3 per cent during the same period, it may be presumed that the per capita income has actually declined for some countries.[2/] This occurred in spite of the development efforts of the Governments concerned, and a per capita volume of foreign assistance greater than that available to most developing countries (see below).[3/]

1/ See Annex, table 1.

2/ See Annex, table 2.

3/ See Annex, table 9.

54. While quantitative information is not available, there is also little doubt that highly unequal income distribution has served to exacerbate the difficulties facing the affected countries. The disparities have been and remain between the urban and the rural areas, between those in the modern sector and those in the larger traditional sector, and between those producing specifically for export markets and those producing for local consumption. Some indications of the relative progress of the components of GDP can be seen in table 3.

55. Exports and imports[1/] of the Sudano-Sahelian countries in the decade of the 1960's provide useful indicators as to the state of their economies. While exports have made a substantial contribution to GNP, especially in Mauritania and Senegal, the increase was not sufficient to eliminate trade deficits: for 1971 the total value of exports stood at $US 332 million, as compared to imports amounting to $US 497 million. From 1968 to 1971, the growth rate of exports fell to slightly over two per cent while imports increased at an average rate of over 10 per cent. The slower increase in exports and the increase in imports can be attributed in large part to the consequences of the drought requiring additional foreign food supplies.[2/]

56. Export earnings of the Sudano-Sahelian countries, other than Mauritania, are obtained principally from livestock[3/] and from one or two cash crops, mainly cotton and groundnuts. Only Senegal exports a significant amount of light manufactures, while Mauritania derives some 90 per cent of its export earnings from iron ore and copper concentrates. The export of livestock, cotton and groundnuts is notoriously subject to the vagaries of weather and world market prices, quite apart from the impact of domestic policies which also affect the level of output. These unpredictable factors place the African exporters in a precarious position and of course affect the pace of development.

1/ See Annex, table 6.

2/ The increasing proportion of food imports is illustrated in table 7.

3/ See Annex, table 8.

2. Foreign aid, savings and investment

57. The inflow of foreign aid to the Sudano-Sahelian countries has been larger on a per capita basis than that received by most other developing countries. Between 1965 and 1971, yearly loans and grants were roughly $US 7 per capita, the total representing over nine per cent of the GNP of these countries. In 1971, the proceeds from these loans and grants paid for nearly 42 per cent of the imports of the countries concerned and constituted nearly 56 per cent of total gross investment.[1/] Grants predominated by far.

58. External capital was needed not only to cover the foreign exchange gap but to augment domestic savings and investment as well. Gross domestic savings as a percentage of GDP averaged 6.9 per cent, as compared to 16.2 per cent for all developing nations.[2/] However, due to the inflow of foreign capital, the ratio of investment to GDP for the Sudano-Sahelian countries was estimated in 1970 at 17 per cent, the same rate as that achieved by all the developing countries in that year. The dual nature of the economies of the countries concerned may help to explain the low rate of per capita income growth despite the relatively satisfactory rate of savings achieved with the help of foreign assistance. Furthermore, development funds from foreign sources have not always been invested in the most productive manner.

59. Domestic financing has been principally directed toward the public sector. It has been limited, amounting on an average to one quarter of the total in the late sixties.

60. While the fiscal burden is relatively high in the countries concerned, the revenue collections have been insufficient to cover even current budgetary outlays. In 1971, all taxes and other Government proceeds in the six countries ranged from 11 to 19 per cent of GDP, a high proportion for countries with large populations living at or near the subsistence level. Export and import taxes provided roughly 45 per cent of total revenue and thus fluctuated widely with foreign trade changes.[3/]

1/ See Annex, table 9.

2/ The range was from - 2.8 in Chad to 23 per cent in Mauritania. See Annex, table 5.

3/ See Annex, table 10.

61. Dependent as they are on external financing, both for capital and current expenditures, the drought-stricken countries have incurred sizable foreign debts. By the end of 1971 the total had reached $US 717.7 million. A measure of the debt service burden is the percentage of interest and amortization charges in total Government revenues. This percentage, in 1971, ranged from four per cent for Upper Volta to 30 per cent for Mali. The unweighted average of 14 per cent of debt charges to Government revenues for the region is high, thus emphasizing the continuing need for grants as the chief means of development finance. The breakdown between foreign loans and grants indicates that grants accounted for between 80 per cent and 90 per cent of all official development assistance since 1965.1/

62. Examination of the physical characteristics of the area, the analysis of its resources and of the factors underlying its economic and social fabric, as well as the scrutiny of the past growth record of the countries concerned, will further assist in identifying the problems and constraints which have prevented the region from generating greater development momentum in the past. At the same time, those elements should indicate the options open to these countries in their future development efforts.

B. STRUCTURAL PROBLEMS OF THE SUDANO-SAHELIAN COUNTRIES

63. Two basic problems of the Sudano-Sahelian economies deserve special attention in the context of the present study. These are:

1. An exceptional vulnerability of the economies because of special climatic conditions and resource disequilibrium;
2. A pronounced dualism of the economy.

1/ See Annex, tables 9, 11 and 13.

1. Vulnerability of the economies

64. Unfavourable climatic conditions, marginal soil fertility and the prevalence of traditional agricultural methods have all contributed to the low productivity of agriculture and livestock husbandry in the Sudano-Sahelian countries. Although irrigation is practised to some extent by pumping and gravity flow, mainly from surface-water sources, crop and livestock production is narrowly limited by the availability of rainfall in time and place.[1/] These factors determine agricultural productivity and production. Thus, during years of adequate rainfall, sedentary farmers expand their operations into otherwise marginal pasture lands; herdsmen similarly increase their stocks as security against potential future droughts. Population pressures compound the problem. Both farmers and herdsmen accelerate depletion of the resource base by overcropping and overgrazing and, to feed their animals and fuel their fires, by exploiting soil protective trees and shrubs. These practices are intensified and are particularly detrimental during drought periods.

65. To alleviate the effects of these destructive patterns, well considered land and water management measures, especially erosion control with protective cover, and restrictions on intensive land use, will be required.

66. Most of the affected countries are at a further disadvantage because of their vulnerable import-export pattern. Mounting imports, particularly of food, petroleum[2/] and machinery, both in quantity and in cost, combined with stagnating and insufficiently diversified exports, create increasingly serious balance of payments disequilibria.[3/] In the export field in particular, an overdependence on a few cash crops and raw materials has not provided a continuous and steady inflow of capital to finance economic growth. Increasing African as well as world demand for meat offers promising market for meat and meat products, assuming herds are reconstituted, quality of livestock and meat is improved and an effective distribution network is established.

1/ See map annexed.

2/ See Annex, table 12.

3/ See Annex, table 12.

67. The vulnerability of the economies of the Sudano-Sahelian countries has been dramatically exposed by the drought and has required them to increase commercial food imports despite the relief operations. This has further aggravated the economic fragility of the region and has forced the countries concerned to appeal for increased external assistance.

2. Economic dualism

68. Regional economic integration is embryonic. At the national level, individual sectors have only minimum inter-relationships. Even between closely related sectors, such as agriculture and livestock, linkages, where they exist, are generally poorly developed. Each sector operates nearly independently with minimal ties to other sectors of the economies. The most importanc trade flows are to non-African countries and, for historical reasons, primarily to Europe.

69. In the primary agricultural sector, the relationship between sedentary agriculturalists and nomadic herdsmen has historically tended to emphasize independence at the expense of potentially complementary exchanges and the co-operative use of available resources. Farmers maintain a minimum of livestock consisting of a few draft animals and goats, and they rarely use animal manure for soil improvement. Being essentially nomadic, herdsmen do not produce fodder; when they practice agriculture, it is mainly for essential crops, such as millet, sorghum and beans. Animals are frequently kept beyond the point of optimum weight and quality for profitable sale. During the present drought, animals have often died from starvation close to water holes or from exhaustion on long migrations in an effort to locate forage. Water holes are frequently located haphazardly, without the integrated planning which would take into account the whole pattern of water distribution and its effects on the environment and sanitation.

70. Thus as herdsmen turn to crop production, and barter exists in the subsistence farming sector, the pattern of duality persists within the primary sector as well as between the traditional and modern sectors. This situation has perpetuated inadequacies in resource utilization, and this dichotomy is a constraint to the increased production for exports.

71. Manufacturing in the Sudano-Sahelian countries is still in its infancy, except in Senegal and to some extent in Mali, and absorbs only a small share of the labour force. Mining, which is most important in Mauritania, is dependent on foreign markets and its products are exported unprocessed. The economic dualism is particularly obvious in this sector where links with overseas markets are stronger than is the case for other economic sectors.

72. Insofar as the economic and social infrastructure is concerned, its development has remained slow due to the heavy financial outlays required and to the need to further strengthen the administrative and institutional structures and manpower resources of the countries concerned.

73. Critical to sectoral integration is the development of skills which would enable the populations to operate and manage their scare resources. At present, close to a third of foreign aid is spent on technical assistance designed to manage and operate projects and programmes financed from abroad.[1/] Since the number of Africans trained and experienced in managerial tasks is far too small for present needs, much greater efforts will be required to train personnel.

74. Until recently, expenditures for social infrastructure have emphasized an educational system insufficiently focussed on the exigencies and needs of the countries concerned. Modifications are now being brought to the teaching systems and programmes so as to promote skills urgently needed for development.

75. Traditionally, schools have prepared students for positions in the modern sector, principally in public administration, and have not devoted sufficient attention to the training needed for skilled and semi-skilled occupations.

1/ See Annex, table 13.

III. NATIONAL DEVELOPMENT PLANS AND THE CILSS PROPOSALS

76. Since independence, the countries of the Sudano-Sahelian region have been formulating comprehensive national development plans. The plans were essentially public sector capital expenditure programmes, establishing quantitative targets and priorities, incorporating only a few of the financial and other policy measures needed for their implementation.

77. Projected investments under these national development plans have traditionally been financed predominantly from foreign sources and in grant form in view of the low domestic savings capacity of the countries concerned. Foreign financing accounted for as much as 60 per cent to 90 per cent of total planned capital outlays in the plans of the late sixties and first years of the seventies. Since drought assistance should supplement regular assistance flows, those Permanent Inter-State Committee (CILSS) projects not included in national development plans should be financed over and above the ongoing assistance. Judging by the unrequited capital inflow for 1973/1974 this has happened in the case of the most affected countries such as Upper Volta, Chad and Niger.

78. The drought and its impact on the economy of the countries has either disrupted the implementation of plans in process, or has slowed down considerably the execution of individual projects included in the plans. The degree of disruption and change in the projected development pattern has varied with the extent to which the drought has affected the economy of each country. In consequence, all countries have reviewed or are in the process of reviewing their planning objectives, taking also into account the impact of capital expenditures made in connexion with the various drought relief actions.

1. The early plans

79. The development pattern adopted by the African countries during the first decade of their independence reflected the prevailing theories of economic development in the industrialized countries, which, to a large extent, were the same countries that financed developmental investment.

80. The early development programmes of the countries under review consisted of a series of separate development projects, frequently not closely related to each other or to the plan targets where these were defined. Many of the plans were not fully operational because decisions with respect to investment and other policy matters were often made without reference to the plans' objectives or priorities.

81. Nevertheless, certain characteristics were common to development policies adopted by nearly all of the Sudano-Sahelian countries. The export sector and industrialization were emphasized, the latter being viewed as the foundation of development. Capital intensive projects using the latest technology were frequently stressed, even if comparatively costly and inappropriate. Large-scale mechanized agriculture was favoured for the production of export crops, in some cases accelerating erosion and the exhaustion of already poor quality soils. Few resources were devoted to developing the production of staple crops and livestock for the domestic market. Large irrigation schemes were often under-utilized and low yielding, and heavy expenditure on economic and social infrastructure was sometimes made without adequate preliminary studies, and resulted in heavy recurrent expenditure for maintenance and servicing, without providing the facilities where needed.

82. The results achieved after 10 to 12 years of continuous development effort accompanied by considerable investment, were in most countries less than satisfactory, although, if an increase in Gross National Product is adopted as the sole yard-stick, countries seem to have made some progress prior to the drought.[1/]

1/ Under the circumstances, and in view of the dual economy prevailing in these countries with very few linkages between the modern and traditional sectors, growth of Gross National Product as a measure of economic development has relatively little meaning.

83. The overall picture, however, showed basically weaker economies: dependent on the outside world for their finance, technology, raw materials, food imports and markets for their products; more vulnerable at home because of structural imbalances; lower productivity in subsistence farming, which provides the means of livelihood for the mass of their populations; progressive erosion of the land; inadequate linkages between the modern and traditional sectors; increasing under-employment and unemployment; and an ever widening gap between the high incomes of a few and the poverty of many, with its consequences on the domestic market.

2. Shifts in priorities - the new plans

84. The benefits of development were disappointingly few, and Governments, even before the present drought, began to re-examine the fundamental premises underlying their development orientation. In the meantime, based on their own experience, the pattern of development thinking has been changing in the donor community. The concept of a multiplicity of development patterns, each indigenous to the physical and cultural environment in which it operates, gradually made its way.

85. In the countries of the Sudano-Sahelian region, the drought has made Governments take a hard look at the realities of the situation, and has prompted decisions by Governments in many countries to change their development strategies radically; a shift in priorities towards the development of the agricultural sector in the widest sense, with its related and supporting activities, is evident in the recently completed plans and those in preparation.[1/]

86. At present, Mali, Mauritania, Senegal, The Gambia and Upper Volta have either formulated a medium-term development programme for the seventies, or enunciated a longer-term (ten year) development strategy (Perspectives du Développement), or both. Chad and Niger have also announced longer-term development objectives.

1/ For information concerning changes in resource allocation among sectors for several of the countries, refer to Annex, table 14.

87. The new national development plans make integrated agriculture (including animal husbandry, crop production, fisheries and forestry) and the primary sector the thrust of the development effort. National self-sufficiency in staple crops has become the major objective, and increased productivity of the subsistence farmer the major means to that end. In general, and with variations for specific problems of individual countries, the new development strategies have the following general objectives: to make the countries self-sufficient in food crops; to associate farming with animal husbandry; and, wherever possible, to build industry chiefly on the produce of the agricultural sector. Labour intensive projects are preferred, and the establishment of small workshops and factories producing goods for the domestic market is encouraged in order to provide new employment opportunities.

88. The income gap between subsistence farmers and cash crop producers is to be narrowed by offering the former subsidies, technical assistance and other incentives, previously only available to producers of export crops such as cotton, groundnuts and sugar. For the first time, the new Mali plan mentions guaranteed prices and secure markets for the subsistence farmers as an inducement to increase production; this would not only provide farmers with sufficiently higher incomes which would enable them to buy the needed agricultural inputs, but would also stabilize the flows of food crops to local markets and stimulate effective demand for domestic manufactures.

89. Mali, Mauritania, Senegal and Upper Volta stress integrated regional development and integrated rural development schemes, which encompass the development of agro-industries and are combined with transportation projects centred around local marketing facilities. Although no changes in the social structure are foreseen, the plans mention farmers' producer and consumer co-operatives as the main policy-making institutions in the rural development schemes.

90. The new Mali plan (1974/75-1979/80) emphasizes integrated regional development schemes based on the expansion of production of small-scale crop or stock farmers. First priority is given to the attainment of self-sufficiency in domestic food supplies and the development of agro-industries, energy and water resources. In the longer run, the plan envisages integrated projects

based on the construction of two large dams: the Selingué dam[1/] and the Manantali dam,[2/] both included in the regional projects proposed by the Permanent Inter-State Committee (CILSS).

91. The new Senegal plan (1973-1977) shows a striking shift in priorities towards agriculture: 41 per cent of total investment are allocated to agriculture (including livestock and forestry) and water development. In recent years Senegal has concentrated on increasing production in light manufacturing and food industries based on cash crops with less emphasis on its agricultural subsistence base. Imports of food, rising to nearly 30 per cent of total imports, were necessary to support the rapidly growing population. In order to encourage the production of food crops, the Government of Senegal is considering subsidies and other incentives for subsistence farmers. As in other countries, the income differences between cash crop farmers and subsistence farmers growing food for the domestic market have become more pronounced in the last decade and the drought has made matters worse, with many subsistence farmers flocking to the urban centres in search of food and livelihood. In general, the new plan stresses the need for meeting the demands of the domestic market first, and focusses attention on the increasing problem of unemployment, which has also been aggravated in urban areas by the refugees coming from the drought-stricken North. Development projects with employment-creating capacities have received priority in the plan.

92. Other features of the plan are re-settlement schemes, the improvement of local marketing facilities and the establishment of local farmers' co-operatives, intended to provide an institutional link between the modern and traditional sectors of the economy.

93. Mauritania[3/] is at present elaborating a longer-term development strategy which aims at the establishment of a more balanced economy within

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1/ The Selingué dam on the Niger River is presently being studied for eventual financing by several international organizations, such as the IBRD, UNDP and FED and by France, Germany, Italy and U.S. (AID).

2/ Preliminary studies have been undertaken by China.

3/ Mauritania's economy is more sharply dualistic in nature than that of other countries in the Sudano-Sahelian region because of its iron ore resources which are exploited by two mining companies in the modern sector. The latter includes also a fish processing complex. This modern sector component provides roughly 95 per cent of recorded exports, but employs not more than half of one per cent of the active population.

the next ten to fifteen years. The new development plan's basic objective is to achieve integrated agricultural development, with controlled livestock production and exports. Self-sufficiency in food staples, including meat, at a higher nutritional level, is one objective of the plan to be achieved in conjunction with the parallel rehabilitation of traditional cultivation of dates (which also serve as a cash crop), cereals and vegetables. Cereal imports have reached an all-time high in 1972, with the situation being further aggravated by the drought. The new development plan also includes the cultivation of rice as a possible substitute for millet and sorghum.

94. Upper Volta has had a so-called "project plan" (1967-1970), which was essentially a list of public sector investment projects. It is one of the few which has stressed agricultural development as the main ingredient of its growth. The projects in the development plan emphasize integrated rural development and a very much needed infrastructure.

95. With the drought severely impairing its execution, however, implementation of the plan has been much below expectations and capital outlay is estimated to have reached about 72 per cent of total planned investment, and about 58 per cent of investment planned for the primary sector (agriculture, livestock, water control and rural infrastructure).

96. The new "Plan Cadre" (1972-1976) shows no major changes in emphasis. It continues to stress the development of the primary sector which is to receive some 30 per cent of planned capital expenditure. As before, the fundamental objective is the expansion and diversification of the agricultural base of the country; to produce food for the rural and urban populations so as to achieve national self-sufficiency and to provide a basis for export growth; to improve the marketing system, the road network and other services which will support and encourage agricultural production, evening out shortages and surpluses. The major institutions and instruments of this action programme are to be the Regional Development Organizations which have been established throughout the country.[1/]

1/ There are 11 of these RDO institutions foreseen for the country. Of these, 10 are in place and functioning. The eleventh and final one, for the Sahel, has been delayed by the drought, which has put great additional strain on the administrative structure of Upper Volta.

97. In Niger, a system of continous planning has been adopted. Under the system, a revised four-year public investment programme is being prepared annually on the basis of the financial status of ongoing projects. Depending upon prospective financing, other projects are included or deleted in a revised programme, after consultation with the Ministry concerned.

98. As was the case with the previous plan (1968-1972), the development of the rural sector has been assigned top priority in the Ten Year Development "Perspectives" which are being eleborated at present. Investment in the agricultural sector will account for about one-third of planned development expenditures. The thrust of the development effort will be towards the dual objective of ensuring adequate food supplies to the population, and to develop exports of agro-industries (in addition to expanding exports of uranium and other minerals). In its agricultural development programme in particular, the Government is seeking to found its policy on the widest possible base in the rural areas through the participation and assocation of farmers, with the help of a country-wide co-operative system, in the proposed improvements in production and marketing.

99. To support the objectives outlined before, various types of programmes have been envisaged and are being carried out, of which the most important are: (a) specific crop development schemes for certain commodities (groundnuts, cotton, cowpeas, fresh vegetables); (b) productivity operations focussed on a selected geographic area and conceived as integrated rural development schemes (irrigation projects, specific schemes for livestock improvement, processing industries); and (c) "programmes de couverture" i.e. general activities designed to increase agricultural production.

100. Niger's landlocked economy is burdened with high transport costs to seaports, and suffers also from an underdeveloped transport system within the country, where distances between marketing points are long. Consequently, roads, bridges and other economic infrastructure related to transport and communication are expected to amount to roughly one-third in the ten-year "Perspectives".

101. Chad's first development plan (1966-1970) allocated nearly 32 per cent of investment outlays to rural development and slightly more than one-fourth

of the total to such supportive services as the development of transport, communication and of domestic trade.[1] A characteristic of the first development plan was the high percentage of expenditure (19 per cent of the total) allocated to such current expenditure as the payment of personnel, transport and maintenance, needed to put the plan into operation. Broadly stated, the plan's objectives were: (a) increase of agricultural production and its diversification; (b) increase in the quality and quantity of meat production through a broad animal health campaign and the provision of permanent water and grazing facilities for livestock, as well as the establishment of processing industries; and (c) the adaptation of the educational system to better serve the manpower needs of the country.

102. Nearly two-thirds of the plan were financed from foreign sources, chiefly from FAC and FED grants. However, the plan's projected investment expenditure was drastically revised downwards (by nearly 50 per cent) when expected foreign financing did not materialize, and also because of technical reasons concerning project preparation and implementation.

103. Chad's new prospective ten-year development plan (1971-1980) is still under consideration. Tentative priority targets indicate that, essentially, the development goals remain those of the previous plan.[2] Although agriculture is allocated over one-third of the total capital outlay in the new plan, only 10 per cent is expected to be allotted to the key livestock sector. The intense development of the latter would probably have the widest impact on the country's economy, particularly in view of the current strong demand for, and high prices of meat which are likely to continue. Most of the investment planned for the agricultural sector continues to support the expansion of export crops i.e. cotton, sugar cane and processing. Food crops and the traditional economy seem to have received relatively little attention. Only five per cent is to be spent on education and health.

104. The new plan may have some effect on the productivity and the standard of living of the rural masses, but it is unlikely to change in any significant way the sharply dualistic structure of the economy. It is expected, however, that in the final analysis the impact of the drought and its consequences will increase the emphasis on the traditional agricultural sector and on the production of basic necessities for the domestic market.

1/ Revised plan (1968). See Annex, table 14.

2/ Projected investments by sector are included in table 14.

105. In The Gambia the planning process and the planning machinery are relatively new. Although The Gambia has had three successive plans since 1964, these have consisted essentially of public investment projects, to be implemented within the framework of annual development budgets. They did not contain any overall quantitative development targets for the economy, such as GDP growth rates or sectoral growth rates. Nor did they include private investment projections.

106. The first two development programmes of The Gambia were devoted almost entirely to the improvement and expansion of the country's economic infrastrucutre. Investment projected in the third development programme (1971/72-1973/74) emphasizes development and diversification of agricultural production to which one quarter of projected investments is allocated. The shift towards capital outlays favouring an increase in agricultural output includes the expanded cultivation of crops such as rice, cotton and groundnuts. Although half of the projected investment is still allocated to infrastructure, it permits the execution of an integrated road and river network which would facilitate the transport to markets of agricultural produce from outlying areas and also encourage the cultivation of new areas. Over 70 per cent of the planned expenditure is expected to be financed by grants and soft loans.[1/]

107. In general, it would seem that the chief difficulty in regard to plan implementation in the Sudano-Sahelian countries was often not so much the lack of available financing, but the absence of both sound project preparation and of technical and managerial capacity to execute projects. When the past record of plan implementation is examined it can be seen that in a number of instances, the rate of plan implementation was lagging, even where financing of investment had been provided. [2/]

108. It should also be kept in mind, that the emergency resulting from the drought has increased considerably the administrative burdens imposed on Governments and civil servants, and has reduced further the availability of technicians and of decision making personnel needed to initiate and implement

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1/ In addition to this development programme, there are three major investment projects being carried out within the framework of the Senegalo-Gambian co-operation scheme.

2/ See table 15.

projects. On the other hand, even if it were possible, the design and execution of entire projects on a "turn-key operation" basis by expatriate personnel, would be highly undesirable. Close co-ordination and co-operation among donors using the same local support services may be one possible, albeit partial, solution to the penury of skills and managerial ability.

3. The proposals of the Permanent Inter-State Committee (CILSS)

109. The expected financial flows to the countries of the Sudano-Sahelian region, which would result from the implementation of the Permanent Inter-State Committee (CILSS) proposals over the next ten years, do not seem excessive, as compared with the average yearly flow of Official Development Assistance funds over the years 1962 to 1972.[1/] In particular, since the largest capital outlays included in the proposals, those for dams and transport schemes, would be part of the investment expenditures foreseen in the development plans of the countries concerned; this should be true also for a number of national development projects included in the CILSS proposals.

a) Regional projects

110. The majority of the regional projects proposed by the CILSS would seem to have been already integrated in the long-term design of recovery, rehabilitation and development plans of the Sudano-Sahelian countries. This is certainly true of a majority of large transport and road projects, some of which are already in progress or about to begin. It also applies to those segments of the four major dams proposed for the region (Sélingué, Manantali, Kandadji and Delta) which form part of large river basin development schemes and for which studies, project design and financing arrangements are at an advanced stage; the four dams represent roughly half the cost of the regional projects.

1/ See Organisation for Economic Co-operation and Development: "Development Co-operation", 1973 Review.

b) National projects

111. An analysis of the national projects reveals that over 90 per cent of the cost will be on projects for agriculture, livestock husbandry, water or land management and related matters. This massive predominance of agriculture-oriented projects represents a much more concentrated effort than anything proposed in the national plans of the pre-drought period, and exceeds even the emphasis on agriculture evidenced in the new national plans. Since the CILSS projects are the choice of the countries themselves, this selection demonstrates a further focusing of their efforts on improving the productive base of their national economies.

c) CILSS projects as a whole

112. Taking the CILSS projects as a whole, and allowing for a certain margin of inaccuracy caused by sectoral overlapping (the main area of overlapping being in the field of water management), it would seem that about 80 per cent of their costs contribute directly to the development of the productive base of the rural areas upon which over four fifths of the population depends for their livelihood. Here again, a new development strategy is apparent, recognizing the preponderant importance of the agricultural base (including livestock, fisheries and forestry), and making it the cornerstone of development, including industrialization.

IV. OBJECTIVES, RELATED BASIC CONSIDERATIONS AND POLICY ISSUES OF THE RECOVERY AND REHABILITATION PROGRAMME

A. OBJECTIVES OF THE PROGRAMME AND RELATED BASIC CONSIDERATIONS

1. General

113. The preceding sections, while summarizing the economic record and the development programmes of the Sudano-Sahelian countries, also reflect the physical, financial and other constraints of the region and identify some of its basic development opportunities. Both constraints and opportunities have to be taken into account when considering a realistic and viable drought-related recovery and rehabilitation strategy for the area as a whole.

114. By now, enough common threads are woven through the existing materials to suggest the existence of a certain consensus concerning possible avenues which could offer a promising and productive course for the recovery and rehabilitation activities. The present chapter tries to outline some of the relevant considerations and the available options, and to make that consensus more explicit; in this connexion it also notes some major issues which the Governments of the Sahelian countries may wish to consider in order to advance the achievements of the overall objectives of the recovery and rehabilitation efforts.

2. Objectives of the recovery and rehabilitation programme

115. Three specific overall objectives, each one with a different time frame, which may be useful to consider in guiding activities related to the recovery and rehabilitation of the drought-stricken countries of the Sudano-Sahelian region, were summarized by the Under-Secretary-General for Political and General Assembly Affairs at a Donor Conference sponsored by the Permanent Inter-State Committee held in Bamako on 15 and 16 March 1974.[1/]

1/ The formulation of these objectives reflected considerations contained in the decisions taken at a meeting of Ministers of the six affected Sudano-Sahelian countries held in Ouagadougou, Upper Volta, on 26-27 March 1973, as well as in the decisions taken at a meeting of representatives of the countries, including experts, Ministers and Heads of State, held in Ouagadougou from 30 August to 12 September 1973. It further reflected the provisions of the respective General Assembly and Economic and Social Council resolutions (ECOSOC resolutions 1759 (LIV) of 18 May 1973 and 1797 (LV) of 11 July 1973, and General Assembly resolution 3054 (XXVIII) of 17 October 1973), as well as the relevant reports and notes of the Secretary-General (E/5374 of 5 July 1973, A/9178 of 5 October 1973 and E/5457 of 25 February 1974).

These objectives are as follows:

a) Mitigation of consequences of future emergencies

116. The first and immediate objective is to ensure that emergencies such as those which occurred in 1972 through 1974 can be met more effectively in the future. The respective Governments and the international community should take anticipatory action to reduce the impact and mitigate the disastrous consequences of future droughts. This will require the most careful advance planning for emergency operations, including the storage of emergency stocks in the area and organization of adequate transport facilities to ensure that relief supplies are readily available to the affected population when needed, in sufficient quantities and at the lowest possible cost.1/

b) The attainment of self-sufficiency in food staples

117. The medium-term objective is to ensure that at the earliest possible date, the countries of the Sudano-Sahelian area will be able to produce domestically and in sufficient quantities their basic food necessities - meat and cereals, and be able to arrange for their proper distribution.

118. This objective suggests giving priority in the development strategy to the production of staple crops and livestock in the area, while at the same time regenerating the ecological and environmental viability of the natural resource base.2/

c) The acceleration of economic and social development with particular emphasis on the least developed countries

119. The longer-term objective is to ensure that the four least developed and most disadvantaged among the countries of the Sudano-Sahelian area - Chad, Mali, Niger, and Upper Volta - will have narrowed the present disparities existing between their economic level and that of other countries of the region and that all Sudano-Sahelian countries will have achieved an adequate rate of

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1/ The first objective need not be elaborated in the present paper, since the specialized agencies and FAO in particular, have prepared detailed plans to minimize the risk of possible similar disasters in future.

2/ It must be realistically recognized that during the medium-term recovery period, the economies of the Sudano-Sahelian countries will still be greatly vulnerable to droughts. Even under the most optimistic assumptions, the recovery efforts cannot ensure that the countries concerned will be able fully to withstand the effects of possible future droughts without heavy external assistance.

sustained and satisfactory economic and social growth thus providing more secure existence and better conditions of life for the entire population.

120. The achievement of this objective implies special consideration and assistance efforts in favour of Mali, Chad, Niger and Upper Volta and, for all countries of the area, the application of a well co-ordinated and coherent planning approach aiming at a full and efficient utilization of available resources, gradual restructuring and transformation of their economies, widening their economic base, expanding food production and raising agricultural productivity in general.

121. A high degree of inter-state planning and harmonization of the objectives of individual country plans as well as extensive regional co-operation will contribute significantly to the attainment of these goals.

3. Principal emphasis of the programme, phases of its implementation, and co-ordination of external assistance

122. To achieve the objectives outlined above, realism and, at this stage, a great deal of pragmatism as well, are essential in determining what is desirable, what is required and what is possible to achieve in the Sudano-Sahelian area, in a given time span and given the existing resources and circumstances.

123. In essence, having the above considerations in mind and taking into account variations for specific problems of individual countries, it would seem that the principal focus of recovery and rehabilitation efforts should be on agriculture, including livestock.

124. The main emphasis of such a design should call for the fullest possible expansion of the agricultural production system, in combination with a reasonably extensive industrial system, based on, and operating in concert with, the agricultural sector, processing raw agricultural produce and supplying industrial raw materials to support the rural population and its agricultural activities. This synergistic development of the agricultural and industrial sectors would open up employment opportunities in the rural sector, leading to investments in agricultural producer goods and in infrastrucutre, as well as to the provision of more adequate social services

such as rural health care facilities and education. Thus, the socio-economic well-being of the rural population would be improved, while the constraints that have prevented the agricultural sector from realizing its potential for so long would be slowly overcome.

125. It is realized that the corresponding strategy would have to be implemented gradually, and that only after an extended period of time would its full effect be felt. Indeed, once the urgent relief needs of the drought-stricken population have been met, the countries will have to struggle with the after-effects of the drought as well as to cope with the long-standing problems and constraints which have impeded their development efforts in the past.

126. If this basic over-all concept is accepted, action regarding the agricultural production system should begin at once. Admittedly, such action in the first phase could begin on a modest scale - say, by monitoring of the movement of the human population and livestock in particularly vulnerable areas. It should result, however, in arresting or reducing resource degradation and at least a partial breaking of the ecological-agricultural circle which reflects the fundamental problem of the region, i.e. the interaction between gradually deteriorating ecological conditions and traditional agricultural practices.

127. In the ensuing second phase, namely in the time span usually associated with a medium-term programme, application of the concept assumes a more far-reaching concern in regard to production management, both in agriculture and industry, its primary aim being a more effective and fuller use of existing resources. In agriculture, this would be accomplished by the gradual introduction of appropriate agricultural techniques and technologies, including effective management of water resources, better tools, simple soil conservation practices and the use of domestically available fertilizers. In this phase, the agriculture-based industrial system would be gradually directed towards the processing of the agricultural produce of the rural areas and, in turn, towards the manufacture of consumer goods and equipment needed by the rural population. This interchange would strengthen the limited linkage between the traditional and modern sectors. The industries to be established in this connexion should, inter alia, be labour intensive, create local ancillary employment opportunities and produce goods which correspond to domestic market demand and to the needs of present and potential trade partners.

128. It is expected that during this stage the economic life and social structure of the countries concerned will be stabilized and the process of economic growth resumed. By basing that growth primarily on the agricultural sector, in particular on staple crops and livestock, a strong foundation could be established for the development of the region in the following period.

129. In the third phase, initiatives regarding the production system would assume the widespread introduction and utilization of modern agricultural technology in both the crop and livestock sectors, bringing about corresponding structural changes in the economies of the countries concerned.

130. It should be borne in mind that throughout all these stages, the primary authority and responsibility for medium-term and long-term activities rests fully with the Governments of the Sudano-Sahelian countries. These Governments clearly enunciated that responsibility at the meeting of Heads of State at Ouagadougou when they established the Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) and when they decided on the Ouagadougou programme of recovery and rehabilitation. The countries themselves, and the intergovernmental agency which they have created for this purpose (CILSS), must be the primary co-ordinators of the external assistance they receive, both technical and financial, gearing requests and projects to their own priority requirements so that such assistance becomes a true instrument of their own development efforts.

131. It is apparent that the traditional system of aid through isolated, fragmented and essentially unrelated activities would be of limited help in overcoming the present critical situation and its heavy consequences.

4. Interdependence of objectives and stages

132. It should be understood that the basic objectives of the recovery and rehabilitation programme and the individual stages of its implementation are closely interrelated and, in fact, represent integral parts of one single continuous process.

133. It is perhaps not feasible to draw any clear-cut delineations between recovery and rehabilitation measures, either in terms of time or substance. There will be unavoidable overlapping of all major stages and operations and a number of measures will serve more than one objective.

134. The emergency measures will undoubtedly be required through 1974, and possibly in 1975, thus directly affecting medium-term considerations. An effective medium-term recovery programme, while concentrating on the creation and development of a more viable production base, should at the same time make a beginning towards the implementation of a carefully chosen long-term rehabilitation strategy. Results achieved and experience gained during that stage, expanded knowledge of the area and a larger volume of scientific, statistical and other data, improved methodology, changes in the attitudes and reactions of the populations, as well as modifications in patterns of social stratification, will undoubtedly play an important role in the development of the long-term programme of rehabilitation.

5. Some general considerations common to both medium-term and long-term programmes

a) Participation of the population

135. The recovery and rehabilitation objectives can be successfully achieved only with the active understanding and participation of the affected populations. While this may seem to be self-evident, it must be constantly stressed. The efforts of the respective Governments and of the international community will produce the desired results only if they take fully into account the existing social structures and if they are compatible to the greatest possible extent with the interest and motivations, experience and skills of both sedentary and nomadic populations they are designed to assist. This will have application, not only in the planning and investment period but also during the later periods of execution and operation.

136. It applies particularly to agricultural schemes and projects where special considerations must be taken into account. The benefits of agricultural programmes are especially dependent upon the degree with which populations respond and co-operate in such programmes. Experience has shown that no agricultural project, programme or policy can be evaluated as to its productiveness within itself; it can only be appraised as productive in terms of the response it evokes among those who are expected to benefit from it.

137. To ensure the involvement of the rural population and to encourage their fullest participation in project design and implementation, it is necessary to intensify communications and to give individual attention to the special requirements of each local area. Such an appreciation for the perceptions and needs of the population will serve to maximize the benefits of national and regional projects providing at the same time an expanding basis of support for further development efforts. In this way those affected will come to feel that their efforts in the development process will be to their ultimate advantage and that concrete benefits will be forthcoming.

b) Solution of socio-economic problems

138. The success of the recovery and rehabilitation programme will depend to a large extent on the resolution, by the Governments themselves, of the demanding and crucial socio-economic problems existing in the area including urban problems, migrations, traditional patterns of life, etc. Those relate, inter alia, to the effective use of natural resources, existing manpower and skills, and the increase of employment opportunities and income. Unless these problems are satisfactorily solved, the programme cannot be expected to achieve optimum results.

c) Training

139. All recovery and rehabilitation schemes should be designed and constructed with due regard to training requirements and educational potential, bearing in mind that the technical assistance efforts should maintain consistency between development and education, by the training on the spot of indigenous instructors and by providing technical and methological support services. Provision must be made in very project for the gradual transfer of functions initially carried out by experts to trained individuals at the local level so that subsequent supervision and maintenance can be exercised to the greatest extent possible without external involvement. This local participation is particularly important since it will help to assure popular support for projects and permit the integration of indigenous values into the projects.

d) Health

140. There is a general awareness that drought-related recovery and rehabilitation activities in all major sectors will significantly depend on a substantially improved and strengthened basic health infrastructure. While large parts of the population had experienced serious seasonal imbalances in

nutrition during normal periods, continued deficiencies, particularly in protein, with grave danger especially to children, have now become an acute and critical threat affecting wide sections of the population.

141. Health in its various aspects should become a matter of systematic concern in planning and implementation of all major recovery and rehabilitation programmes and projects. Particular attention should be paid in this regard to water management and irrigation projects.

e) Man and environment

142. Throughout the recovery and rehabilitation stages, primary attention must be paid to the maintenance of the delicate balance between man and environment. Extreme care will be required for the conservation and amelioration of the fragile ecology of the area. While a carefully planned and orderly increase of productivity can directly and positively contribute to the improvement of the natural environment, uncontrolled expansion of land use would inevitably lead to further serious deterioration, risking the irrevocable erosion of the entire production base of the area.

f) Comprehensive nature of the suggested programme

143. Neither medium nor long-term solutions of the problems confronting the area can be achieved on the basis of any single formula or model, or of any isolated operation, however extensive or seemingly promising. Recovery and rehabilitation efforts will not be successful, for instance, by focusing on selected measures taken out of context, whether they be irrigation schemes, the development of narrow strips along the main rivers and around lake basins or the creation of a "green belt" to stop the expanding desertification of the region. Rather, it will be necessary to strive for comprehensive and integrated programmes, judiciously prepared and consolidated in the light of the economic, social and ecological patterns of individual countries and of the region as a whole.

g) Maintaining a momentum of active interest and direct involvement of the international community

144. It is obvious that very substantial international assistance will be required for programmes of recovery and rehabilitation for many years. In this connexion, it is essential that interest and involvement of the international community in the Sudano-Sahelian region generated by the current crisis, should not slacken and that the momentum be maintained not only for the duration of the immediate emergency, but throughout the medium-term and long-term period.

6. Specific considerations related to the medium-term programme

a) Existing physical and human resources

145. Efforts to achieve the principle objectives of a medium-term recovery programme must per force be based on the existing physical and human endowments of the Sudano-Sahelian countries as well as on their existing insitutional structures. The land and water resources, the available technology, the technical and managerial skills of the population, and the economic, social and cultural structures that now prevail must serve as the foundation for such a programme.

146. Possibilities for discovering new resources, introducing new technology and strengthening indigenous skills should be carefully examined and developed on a continuous basis.[1/] However, the need for achieving significant mid-term results in the form of increased production in the region is too urgent to be founded on the prospect of bringing about immediate major transformations in physical resources or in human skills and behaviour.

b) Information base and data collection

147. Planning, policy decisions and implementation of the programme will have to be made principally on the basis of existing knowledge and available data concerning the area, even when such information is scanty. While some additional data collection and analysis will be necessary, its scope should be limited and it should be closely related to the immediate decision-making needs. The requirements for information and study should always be carefully balanced against the urgent needs for action, taking the time-element fully into account.[2/]

c) Financial aspects and external assistance

148. The medium-term recovery efforts should be oriented toward encouraging and facilitating early investments in areas and activities that are now believed to offer substantial promise of productive results. It will be

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1/ Of special significance should be an inventory of the physical and human resources of the countries concerned which would open the door to the investigation of production capacity, market demand and the proper identification of development constraints.

2/ In the long run, for instance, it will be essential to obtain a deeper and much more comprehensive understanding of climatic developments in the area. The contribution of meteorological and hydrological services towards mitigating the effects of drought and towards future economic development of the Sudano-Sahelian area, is substantial. By now, it is widely recognized that without measurement and understanding of weather factors, attempts to develop production, by extension or intensification in normal as well as in dry years, and at the same time to preserve the fragile ecological system of the Sudano-Sahelian environment, can only be on a trial and error basis; such a basis can prove costly, time-consuming and extremely unreliable.

necessary to finance these investments primarily from foreign sources, both as to capital outlays and with respect to current expenditures arising from these investments. Governments of the area which already are heavily in debt cannot be expected to increase their domestic revenues significantly during this period; neither can they be reasonably expected to service much more foreign indebtedness. They will continue to require external assistance for many years to come, and, in fact, this assistance will have to be intensified to finance the Ouagadougou programme.

d) Cost-effectiveness ratio and labour-intensive approach

149. The urgency of the situation and limitation of both domestic and external resources will call for direct immediate measures with the highest possible economic and social cost-effectiveness ratio. This need not exclude, in certain circumstances, labour-intensive approaches which could have considerable social advantage.

e) National and regional aspects

150. The mid-term programme assumes that most recovery planning and programming will, for practical reasons, proceed primarily on a national basis, while simultaneously building up through CILSS and other regional and sub-regional organizations well considered and reliable elements of strong and effective regional co-operation.

f) Co-ordinated approach and selection of projects

151. In general, it would appear that the emphasis in the mid-term programme must be on the formulation and adoption of a recovery programme with a broad approach to the problems at hand, co-ordinating national and regional priorities, recovery projects and development plans as well as the assistance efforts of bilateral and multilateral donors. In economic terms, the efforts to achieve the goals of such a programme should be directed to a more rational, effective and fuller utilization of the resource endowment of the area, both physical and human.

7. Recovery and rehabilitation efforts and national development plans

152. The drought-related projects formulated by the Permanent Inter-State Committee (CILSS), referred to in part III of the present document, should be viewed in the general context and in the over-all perspective of the national development plans and of their objectives, since the latter are the basis of the long-term development efforts of the countries concerned.

153. Concerning the role of the United Nations, it should be noted that recovery and rehabilitation efforts do not in any way substitute for ongoing activities in the field of technical and financial assistance provided through the United Nations Development Programme (UNDP) country programming exercises or the regular programmes of specialized agencies. In fact, a number of such United Nations sponsored programmes and projects have not been specifically mentioned nor have their costs been assessed in the present document, although their impact on drought recovery and rehabilitation activities will be significant.

8. Specific aims and project selection criteria and principles for the involvement of the United Nations system

a) Specific aims

154. The foregoing objectives and considerations suggest a series of aims that should receive priority attention in the course of evaluating both existing and new proposals for recovery and rehabilitation activities in the Sudano-Sahelian area, especially in their early stages. They include, inter alia, the following:

i) Concentration of particular efforts on production and consumption in the traditional economy. This, together with other economic measures, would make it possible for the mass of the population of the region, both sedentary and nomadic, to improve their levels of living and find a more secure existence.

ii) Increase in the volume of production of staple food crops, fodder and livestock, reducing the dependency of the countries concerned on imports of food necessities.

iii) Improvement in the use of land and water resources aiming at a reasonable and constructive balance between the need for ecological protection and the needs for increased production.

iv) Co-ordination, to the greatest possible extent, of the production and marketing of food crops, fodder and livestock between the nomadic and sedentary rural population.

v) Integration of the development of the rest of the economy with the expansion of the agriculture and livestock sectors. Investments outside these sectors should be geared to provide the necessary capital inputs, raw materials and services which would support the development of the agricultural base by transporting, transforming or marketing its products.

vi) Integration of recovery and rehabilitation projects, as well as new development projects as much as possible with development projects in progress and with the general design of the overall development plan. The effects of the various development projects should complement and reinforce each other.

b) Project selection guidelines

155. For practical purposes it will be useful to have a set of guidelines to apply in reviewing and evaluating project proposals. It is understood that such guidelines would not constitute any rigid scheme and would be subject to modifications and shifts in emphasis by the Governments concerned, in the light of their specific needs and priorities.

156. The following considerations, which are not set out in any order of priority, may help to identify specific projects which would serve the recovery and rehabilitation objectives outlined in the present paper and which should consequently receive a high priority claim on available funds within the framework of a chosen over-all approach:

i) Projects to increase the supply of food, fodder and water in the drought-stricken regions; in considering such projects it should be kept in mind that they must be associated with resource management programmes.

ii) Projects to improve land management practices and projects to develop well considered irrigation and water management schemes.

iii) Projects which will improve incentives to produce food crops, fodder and livestock.

iv) Projects to improve the delivery of seeds, fertilizer and other inputs to producers of livestock, fodder, and staple food crops.

v) Projects to improve the marketing and storing of food crops, fodder, and livestock products.

vi) Projects to improve infrastructure and to provide cost-effective transport facilities for the producers of livestock, fodder and food crops.

vii) Projects to promote labour-intensive industries which produce inputs for the agricultural sector, such as fertilizers, pesticides or feed, and which provide for better markets for agricultural production.

viii) Projects to improve basic health services; such services must be considered essential component of any successful recovery and rehabilitation effort.

ix) Projects which contribute to the improvement of the training and educational potential in the region thus intensifying and increasing the quality of local participation in the recovery and rehabilitation efforts.

x) Projects to harmonize and integrate development planning and programming for the Sudano-Sahelian region as a whole.

c) Principles for the involvement of the United Nations system

157. The involvement of the United Nations system in the recovery and rehabilitation programme should be based on the following basic principles:

i) First, the programme and projects must be requested and articulated by the Governments concerned or by CILSS. While the United Nations may assist in the identification of such a programme and projects, they must originate from the countries themselves and fully reflect their needs;

ii) Second, the actions that form integral parts of the involvement must be in harmony with the recovery and rehabilitation objectives of the CILSS and its Member States;

iii) Third, the involvement must be within the special competence and capacity of the specialized agencies, organizations and programmes of the United Nations system.

B. POLICY ISSUES FOR CONSIDERATION BY THE DROUGHT-STRICKEN SUDANO-SAHELIAN COUNTRIES

158. The preceding discussion of a medium-term and long-term recovery and rehabilitation programme for the drought-stricken Sudano-Sahelian countries touches on a number of major policy issues which, in the final analysis, can

be resolved only by the countries concerned or by the Permanent Inter-State Committee (CILSS).[1/] Some of these issues may be at least partly resolved through the implementation of the projects proposed by the Sudano-Sahelian Governments at Ouagadougou in September 1973.

159. The following discussion is intended to focus on and elaborate some of the main problems of the area which will require basic policy decisions and carefully considered actions by the respective Governments. They include the following subject matters:

1. Land use management;
2. The management and use of water supplies;
3. The question of the nomadic population;
4. Economic interdependence between livestock breeders and sedentary farmers;
5. Pricing policies for agriculture and the need for dependable markets;
6. The linkage of economic sectors;
7. The scope of regional co-operation.

1. Land use management

160. A crucial structural problem of the Sudano-Sahelian region concerns its fragile ecological-agricultural balance. Historically, insufficient attention has been paid to the fragile ecology of the semi-arid region of the Sahel, which is all too easily thrown out of balance by improvident land use practices.

161. In the past, as noted previously, when rainfall conditions were favourable and demand for their products was high, farmers expanded the grain crop area to zones which previously served as pasture lands. These zones consisted of marginal soils which by their very nature were poorly suited for crop production. In addition, increases in human population as well as increased emphasis on production of cash crops (groundnuts and cotton) for export, aggravated the pressure for increased production causing overcropping and an imbalance in the fallow land system of farming.

1/ These issues are defined in detail in the sector studies prepared by various organizations and programmes of the United Nations system. A complete list of these studies is attached to this report.

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162. In times of low economic pressure, much of the land remains fallow for several years at a time, and thus fertility is restored by natural processes. However, under increased economic pressure the fallow time has been greatly reduced so that soil fertility has not been restored. This depletion of soil fertility resulted in decreased yields, which, in turn, may have led to further reductions in fallow time, up to the point of its elimination, to make up for deficiencies in production. As a consequence, soil degradation was intensified and the delicate balance between man, plant and land has been further impaired.1/

163. The paramount significance of the agricultural sector to the overall economy of the region obviously requires that a pattern of land use be adopted which takes into account the environmental constraints arising from soil, climate and other ecological conditions. Therefore, the principles of sound, careful land management fully suited to and compatible with the ecology of the region and, within the region, with its various ecological and climatic zones, should be applied to all future agricultural activities.2/

164. It is important that foreign aid activities are consonant with these considerations. The application of sound land management principles must be designed not only to arrest a further deterioration of the land, but also to replenish in time the fertility of the soil by proven cropping and rotation practices.

2. The management and use of water supplies

165. The very fact that the crisis of the Sudano-Sahelian region has been exacerbated by a persistent drought focuses attention on the management of water supplies. It is clear that better use must be made of the available rainfall and the supply of underground water, as well as of river water and river floods. It has been the consensus of Governments and technicians alike,

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1/ For land use problems caused by overgrazing, see section 3 of this chapter.

2/ To this effect an inventory of the use of land resources would be desirable, including an inventory of the grazing systems and the forage resources of the zone, and encompassing a study of rangeland trends and of the progress made by desert encroachment and expansion.

that a master plan for water has to be elaborated on a country and regional basis[1/] and strictly adhered to by all concerned in building new, or rehabilitating old, waterworks. Such a plan should view water supply, utilization and conservation on a long-term basis, in conjunction with the long-term economic development pattern envisaged for the region. Fully aware of the inherent ecological implications, it should take into consideration present water availabilities and future prospects, investments projected and their timing, linking them with the demand for water, its most effective use, and its value to different consumer groups.

166. One set of current issues centres around the question as to what extent large-scale irrigation schemes and an extensive programme for drilling new mechanically operated wells would be advisable in order to increase the supply of water significantly. Another set of issues concerns the most productive future use of the available supply of water.

167. A number of factors point up the importance of linking new well construction to the use of the water within integrated programmes established to improve the conditions of human life and to achieve more productive management of livestock and fodder. New wells are relatively expensive to construct and the quantity of additional water each one may yield is limited. If they are not located with full consideration of the availability of fodder, other water supplies and markets, their economic and social benefits will inevitably be greatly reduced.

168. Experience has shown that investment in small-scale irrigation schemes that take advantage of the natural flooding of rivers may produce relatively significant benefits in terms of increased production.

169. Finally, consideration has been given to various proposals for the construction of large dams. Such programmes appear to provide the most promising prospect for protection against future drought, as well as for significant increase in water availability for the entire economy with the consequent structural changes. They undoubtedly offer a vast potential for controlling a resource that so critically limits the development possibilities of the area. However, their high cost and heavy demands on the physical and

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1/ There have been numerous proposals over the years for such a plan, and a voluminous technical documentation has been built up and is available.

human resources of the countries concerned strongly suggest the need for the most careful technical and economic evaluation, and make it imperative that utmost care should be exercised in order to avoid major investments in premature or excessively costly construction.

170. The dams included in the Ouagadougou proposals are interregional in conception and foresee multiple uses for the water supply. Feasibility studies are already in progress for several of the dams. Both studies and decisions should be expedited, concerning whether their construction is to be initiated during the period of the medium-term recovery programme. In any event, however, their effect on the water supply of the region will be felt only after the completion of a mid-term programme. Ideally, all decisions concerning the design and utilization of water should be integrated with plans for the future economic structure of the region.

171. It should be added that, in general, in case of projects involving large-scale irrigation schemes, there is always a need for caution. The results obtained from such projects in the past have been in a number of instances quite disappointing. On the one hand, in some cases, the farmers using traditional methods have not been trained in modern irrigation techniques. On the other hand, the high cost of construction and maintenance has prevented, in a number of instances, the farming which irrigation has made possible to be profitable. The training of farmers and, as far as possible, the adoption of simpler and less costly techniques should be two priority objectives in preliminary works and projects relating to agricultural water supply, particularly in the early stages of the recovery programme.

3. The question of the nomadic population

172. The length of the drought, the northward encroachment of sedentary farming, the deterioration of the livestock grazing areas and the southward migration of the nomadic population have all combined to raise questions about the future of the nomadic population. Some observers argue that the nomads should be encouraged to leave the marginal pastoral regions permanently and relocate in areas of greater rainfall. However, the resettlement option seems to be realistic only for a relatively limited number of people, and over a considerable spread of time.

173. First of all, despite the fact that the land of the semi-arid zone of the Sahel is unsuited for use other than producing livestock, it represents a valuable asset in an area critically short of resources. Furthermore, the nomadic people are skilled in livestock breeding, they are excellent pastoralists, and they are attached to a way of life that they have evolved over many generations. Nomadism is not only a way of life but is, in fact, a civilization uniquely adapted to a harsh environment. Moreover, the migration of nomads under pressure of drought conditions to the south has and will have a tendency to create serious economic and social tensions, further aggravating the overall critical situation in the area.

174. Accordingly, a sensible approach would permit and perhaps even encourage those of the nomadic population who so desire to rebuild their traditional existence in the semi-arid zone. This could prove beneficial both to the nomads and to the area as a whole. However, a more secure and tenable basis for their existence must be sought than the marginal and deteriorating conditions that were brought to a head by the drought.

175. The return of the nomadic population to the semi-arid areas would suggest the need of appropriate Government policies and assistance to control and improve the management of both pastureland and water resources. Past experience has shown that the herdsmen respond to improvement of the health conditions of animals and especially to additional water supply by rapidly increasing their stock of cattle, often without regard to the carrying capacity of pastures, thus creating further problems of overgrazing and of further expansion of the desert.

176. A number of patterns have been suggested which would lead to better use of the available resources of water and pastures and which would render more productive the skills of the people in raising livestock. One such proposal calls for the establishment of grazing rights combined with effective control by technical services, with necessary governmental authority to limit the intensity of grazing. Another proposal is premised on the feeding of cattle, born in the north, to a stable weight during the rainy season and then transfering them to rainfed areas in the south for continued fattening. Alternatively, fodder might be grown in the south for use in the fattening of cattle in the north, etc.

177. Obviously, it will be for the Governments concerned to decide upon the best course of action which would be most compatible with the design of their recovery and rehabilitation programme, and then formulate and apply a set of economic inducements for pastoralists which would encourage them to adopt the chosen production pattern.

4. Economic interdependence between livestock breeders and sedentary farmers

178. The rehabilitation of the nomadic population in the semi-arid areas would be facilitated by greater co-operation between the pastoralists and the rest of the economy and specifically the farming communities. There need not be conflicts of interest between nomads and non-nomadic people; to the contrary, greater communication between the two groups could serve the advantage of both.

179. The integration of crop and livestock-raising would advance the interests of people whose livelihood depends on either the range or on croplands. There has been traditionally an exchange of goods and services between livestock breeders and crop farmers without, however, any mixed agriculture having developed. If the sedentary farmers raised more fodder, it could be used to fatten livestock, either in the semi-arid zone or in the region where the fodder is grown. In either case, total output and productivity of both livestock breeders and sedentary farmers would be increased. The possibilities are realistic, though time and effort will be required to induce the necessary changes in traditional economic and cultural patterns.

180. The pastoralists need fodder throughout the year but are only able to produce it during part of the year. With feed produced in the rainfed zone, the annual migrations of herds could be reduced and the economic value of a given herd of livestock significantly increased. If the sedentary farmers, on the other hand, produced forage in rotation with millet and sorghum, this would increase the yields of their staple crops. Cattle, fed by sedentary farmers at feeding stations, would also provide manure and traction and thus further improve the productivity of the sedentary farmers.

181. A variety of mechanisms have been suggested for encouraging and assisting such changes in production patterns that might result in better co-operation between farmer and herdsman, and also stabilize and increase the incomes of both the nomadic and the sedentary populations. Co-operative associations might be established, involving both herders and farmers; demonstration and extension programmes could be used to increase understanding about the possibilities for higher income that would result from changes in the traditional agricultural practices. Also, economic incentives such as higher and guaranteed prices might prove a particularly effective means for accelerating the desired adaptations necessary for a fuller use of available resources through mixed farming practices.

5. Pricing policies for agriculture and the need for dependable markets

182. A considerable body of evidence has been accumulated in recent years in Africa and elsewhere, indicating that a system of incentive prices for agricultural products will induce farmers to produce more (i.e., will increase the aggregate supply of farm output) as well as change the composition of what he produces (i.e., induce changes in his product-mix). In the recent past, a system of equitable and guaranteed prices has been applied successfully in some Sudano-Sahelian countries to stimulate the production of export crops, chiefly groundnuts and cotton. They were met by a gratifying response in the form of increased production, largely achieved through a better and more diligent application of labour. Motivated by price guarantees, farmers managed to obtain the inputs needed to expand production, even in the absence of more direct Government assistance or procurement. Price stabilization efforts also have had the expected response when applied in specific regions to local food crops.[1/]

183. Among the various methods of applying a system of incentive prices to induce changes in the volume and composition of agricultural output of farmers in the subsistence economy, two techniques are particularly suited to the limited budgets and administrative machinery of the Sudano-Sahelian countries: price stabilization at the farm level and the subsidization of key farm inputs.

1/ In the Yatanga region of Upper Volta, for example.

184. As has been mentioned before, the introduction of price stability into a limited market situation has proved effective in expanding the production of the commodities involved and is far easier to administer than the manipulation of produce prices. Farmers, under conditions of price certainty (which reduces their price and income risks), will invest more confidently and therefore more heavily in their farming operations, adopt new technologies and take various other actions to increase their production.

185. Of comparable importance is the provision of key inputs to farmers at subsidized prices. For instance, there are reasons to believe that a reduction in the cost of commercial fertilizers would result in increased usage and hence contribute to expanding production. The cost to Governments of administering the programme should be within their budgetary capabilities.

186. A programme of incentive pricing policies must be complemented by technical and resource programmes, informing and instructing the farmer or herdsman in the use of more productive inputs and of the technologies which would help him increase his output.[1/]

187. A system of price incentives for livestock and food crops supported by appropriate government programmes thus offers considerable promise of improving the income of both herdsmen and sedentary farmers. In turn, farmers will need a reliable and reasonably priced supply of seeds, fertilizers, pesticides, water pumps and other implements to sustain and increase their production of fodder and crops. Higher and more stable prices would enable them to pay for such inputs and to encourage them to undertake the investment to expand production. On the other hand, a rise in the come of herdsmen and sedentary farmers should provide a solid base for the expansion of effective demand in the domestic market for consumer goods as well, and thus further contribute to economic recovery and expansion.

188. While the organization of better incentives for an improved livestock economy is complicated, the need for dependable markets is urgent. The influence of depressed prices for livestock has been an important factor in inhibiting the production and purchase of fodder.

1/ A number of development plans now in the process of elaboration in the Sudano-Sahelian zone propose programmes of price incentives as a means of obtaining larger outputs.

189. A programme of guaranteed prices for livestock could be carried out in a variety of ways. The Government might act as a legislator of minimum prices or as a buyer of last resort. A system of progress payments might be instituted for the herdsmen; they might retain ownership and continue to receive payments while young cattle are being fattened in the south. Progress payments might also be made to the sedentary farmer while he fattens young livestock transferred from the north, etc.

6. The linkage of economic sectors

190. A recovery and rehabilitation strategy for the Sudano-Sahelian region should focus on building better linkages among all sectors of the economy, and, as noted above, between the livestock and agricultural sectors in particular. This would have profound implications for strengthening the linkages among other sectors of the economy of the countries concerned.

191. For instance, the pricing and tax structure has benefitted the modern sector and export commodities especially, sometimes at the expense of the traditional sector. This in turn, attracts the more advanced and productive labour force into the modern sector depriving the traditional economy of important human resources. The banking system, interest rates, and fiscal policies, are, in some cases, more congenial to the modern sector. In general, policies relating to the allocation and distribution of available resources should provide more equitable compensation to the traditional sector for its products and services, thus creating more favourable terms of exchange for the traditional sector vis-a-vis the modern sector.

192. It was suggested above that early development investments in the Sudano-Sahelian countries have not always been fully co-ordinated and sometimes have been insufficiently related to the needs of the economy and to each other. Hence the development impact on the region has been less significant than might otherwise have been the case. It should be recognized, however, that the linking of diverse projects and groups of projects financed and implemented by different sources is no easy matter. It requires careful co-ordination of all development efforts and close collaboration among donor agencies of a type which has seldom been achieved. Still, the benefits derived from such a process of closer linking would be well worth the additional effort both on the part of the donors and the recipients. The Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) could play a major role in this respect.

193. There are numerous instances where linkages among investment projects could be most effective. For instance:

194. Efforts in road building might be concentrated on those access and feeder roads which link agricultural purchasing centres with supply points and marketing outlets. Water rehabilitation and maintenance efforts could also be focused along these routes and points. Industrial development efforts would utilize, as much as possible, the by-products of domestic agriculture and livestock. Manufacturing, to the greatest extent practicable, would emphasize the processing of animal products, fish, hides, cereals, pulses and forest products such as gum arabic. A special effort could be mounted to discover and exploit locally abundant building and construction materials, such as stone, limestone, and gypsum. Particular attention is suggested for those materials which can be employed on the construction of feeder roads in the vicinity of the sources of these materials. In the case of industrial development, preference in manufacturing projects could be given to those for whose products there is a large effective internal demand and a well-demonstrated comparative cost advantage.

195. Generally speaking, the linkage of sectoral priorities provides a substructure for a cohesive strategy. It serves, inter alia, to reinforce the impact of individual projects and to increase social returns from investment in the development of the Sudano-Sahelian countries.

7. The scope of regional co-operation

196. The success of any mid-term recovery and longer-term rehabilitation strategy will be influenced by the level of co-operation that can be achieved among the countries within the region, as well as by the degree of co-operation and support that the Sudano-Sahelian countries receive from the neighbouring coastal countries, and, last but not least, from the international community of nations. This emphasis on the importance of regional co-operation is of particular importance especially in view of the magnitude of accummulated economic and social problems confronting the area, which have been further aggravated by the devastating effects of the drought.

197. At present, economic interdependence and interaction is far from strong. As has been mentioned before, trade within the area is relatively weak, compared to trade with West Africa as a whole and, especially with some members of the European Economic Community.[1/] However, there are some encouraging steps and measures which should be further cultivated and intensified. For instance, a measure of regional economic co-operation is already in existence among the Sudano-Sahelian countries and between them and some of their neighbours especially in the area of regional water projects and international highways. These are obvious examples of programmes that will greatly benefit from co-operative and co-ordinated planning and further contribute to the regional concepts of development planning. Also, a number of regional organizations[2/] in West Africa, most of them established for the integrated development of multinational lake and river basins, have been in existence and active for some time. The geographical scope of these organizations includes two, three or more of the member countries of the Permanent Inter-State Committee (CILSS). For instance, the "Organisation de la Mise en Valeur du Fleuve Sénégal" (OMVS), whose member states are Mauritania, Mali and Senegal, has already elaborated an Integrated Development Plan for the Senegal River Basin, which calls for close co-operation among the countries concerned, donor countries and international organizations.

198. The Ouagadougou proposals themselves are the result of the work of the Permanent Inter-State Committee (CILSS), which is, as noted, a regional inter-governmental organization. Many benefits could accrue from encouraging and expanding such initiatives of mutual co-operation.

1/ Under the aegis of the United Nations Economic Commission for Africa (ECA) a number of co-operative efforts are proceeding in the economic field, not directly related to the Sudano-Sahelian countries or to the drought and its after-effects but which are, nonetheless, of considerable interest and value to the recovery, rehabilitation and development efforts of the Sahelian countries. These have included ministerial meetings on trade, development and monetary problems which were held in 1973/1974 to discuss mutual concerns arising from increased prices of petroleum and other imports.

2/ On this subject see: Selected Regional Intergovernmental Organizations in Africa, Their Status and Their Relationship with the United Nations and the Special Sahelian Office, Special Sahelian Office, January 1974.

C. CONCLUSION. REVIEW AND EVALUATION.

199. Formulation of a final over-all recovery and rehabilitation strategy falls into the exclusive competence of the Sudano-Sahelian countries concerned and of the Permanent Inter-State Committee (CILSS). The approach, as contained in the present document, should be understood as a contribution of the United Nations Sahelian Office to the process of seeking acceptable and productive solutions to the critical problems facing the people of the Sudano-Sahelian area.

200. It is also understood that any set of objectives, considerations, aims and criteria requires further elaboration, revision and change over time. A continuous assessment and review of the strategies chosen must take place if they are to be truly effective. In the coming years, conditions within the Sudano-Sahelian area, as well as related external circumstances, will undoubtedly change to the extent and in ways that cannot be fully anticipated today. Moreover, as experience accummulates in applying the elements of a consolidated recovery and rehabilitation strategy, new problems of definition and interpretation inevitably will arise. Accordingly, it would be desirable to establish mechanisms to provide for a feedback from the application of the strategy, to evaluate the effectiveness of the programme and to permit periodic review of its various elements.

ANNEX

TABLE 1

Population estimates,[a/] annual rates of increase in per cent, and population projections for seven West African countries

	Chad	Gambia	Mali	Mauritania	Niger	Senegal	Upper Volta	Total
Population				(in thousands)				
1960	2,975	362	4,089	950	2,913	3,110	4,400	18,799
1965	3,306	389	4,530	1,050	3,513	3,490	4,858	21,136
1969	3,571	421	4,943	1,146	3,914	3,837	5,278	23,110
1970	3,640	429	5,049	1,171	4,016	3,925	5,384	23,614
1971	3,744	438	5,166	1,201	4,121	4,024	5,513	24,207
1972	3,851	448	5,286	1,231	4,229	4,125	5,645	24,815
1975	4,199	479	5,668	1,330	4,579	4,452	6,058	26,765
1980	4,843	539	6,488	1,518	5,287	5,086	6,883	30,644
Annual Average Rate of Increase				(in per cent)				
1960 - 1970	2.0	1.7	2.1	2.1	3.3	2.3	2.0	
1960-1965	2.1	1.5	2.0	2.1	4.0	2.3	2.0	
1965-1970	1.9	1.9	2.2	2.2	2.7	2.3	2.0	
1970 - 1980								
1970-1975	2.9	2.2	2.3	2.5	2.6	2.5	2.4	
1975-1980	2.9	2.4	2.7	2.7	2.9	2.7	2.6	

SOURCE: United Nations Office of Economic and Social Affairs, Population Division

a/ The figures included in this table are tentative estimates, based on the latest available information, as of 1973, on population in the seven Sudano-Sahelian countries. The figures are subject to change due to the effects of the drought, among other factors.

ANNEX

TABLE 2

Per capita GNP, GDP, population estimates[a/] and growth rates

Country	Per capita GNP [b/] 1970	Per capita GDP [b/] 1970	Average annual growth rates of total real product 1960-70	Average annual growth rates of total real product 1968-71	Population 1970	Average annual growth rates of population 1960-70	Average annual growth rates of per capita real product 1960-70	Average annual growth rates of per capita real product 1968-71
	(dollars) (US)	(dollars) (US)	(in per cent)	(in per cent)	(millions)	(in per cent)	(in per cent)	(in per cent)
Chad	70	74	1.2	1.3	3.64	2.0	-1.1	-1.0
The Gambia	120	110	5.7[c/]	8.0	.43	1.7[d/]	5.0[c/]	n.a.
Mali	100	53	0.5	3.2	5.05	2.1	-1.6	1.1
Mauritania	154	164	7.7	3.0	1.17	2.2	5.4	0.8
Niger	82	90	4.7	-3.4	4.02	2.7	1.9	-5.9
Senegal	178	217	1.3	-4.4	3.93	2.4	-1.1	-6.6
Upper Volta	60	65	3.0	-0.2	5.38	2.1	0.9	-2.3
Total of above	98		2.3	-0.8	23.19	2.3	0.0	-3.0
Total Developing Countries	208		5.2	6.0	1693.0	2.5	2.6	3.4

SOURCE: ESA Population Division and UNCTAD Secretariat, based on data from the Statistical Office of the United Nations and other international and national sources.

a/ Population figures are tentative estimates, based on the latest available information, as of 1973. These figures are subject to change due to the effects of the drought, among other factors.

b/ At current prices.

c/ 1965-70.

d/ Estimates for annual population growth vary from 1.7 per cent to 2.1 per cent for the years 1965-1971.

ANNEX

TABLE 3

GDP at current factor cost by industry, 1968 to 1970

(in millions of $US)

Country	Year	Agriculture	Mining	Manufacturing[a]	Construction	Commerce	Transport	Total including other
Chad	1968	112.0	-	15.0	13.0	33.0	3.0	221.0
	1969	109.0	-	17.0	13.0	35.0	3.0	224.0
	1970	106.9	-	18.0	15.0	38.0	4.3	233.0
The Gambia	1970	24.8	negl.	1.3	b/	18.4[b]	b/	b/
Mali	1968	99.0	-	28.0	10.0	40.0	8.0	218.0
	1969	98.7	-	28.4	10.5	40.6	9.6	223.5
	1970	106.0	-	30.0	10.0	46.0	11.0	244.0
Mauritania	1968	64.7	41.6	4.0	11.0	10.0	3.0	154.0
	1969	67.0	46.0	4.0	13.0	11.0	3.0	166.0
	1970	71.0	57.0	4.0	16.0	12.0	4.0	189.0
Niger	1968	156.0	-	17.0	14.0	30.0	7.0	263.0
	1969	165.0	-	18.0	17.0	32.0	8.0	281.0
	1970	175.0	-	19.0	20.0	33.0	9.0	300.0
Senegal	1968	238.3	2.0	107.0	15.0	135.2	37.0	686.0
	1969	188.4	2.0	106.0	16.0	133.2	37.0	647.0
	1970	224.3	2.0	111.0	18.0	141.4	40.0	706.0
Upper Volta	1968	108.0	-	19.0	9.0	30.0	9.0	207.0
	1969	122.0	-	22.0	12.0	34.0	10.0	235.0
	1970	119.0	-	24.0	15.0	38.0	11.0	245.0

SOURCE: Sahelian Office and United Nations Economic Commission for Africa, Survey of Economic Conditions in Africa, 1971, Part I

a/ Manufacturing, industry and electricity production.
b/ Includes transport, storage, tourism and all other services.

ANNEX

TABLE 4

The agricultural sector

Countries	Agricultural labour as % of total labour force 1970	% share of agriculture in total GDP 1970	Average annual growth rates of agricultural production (%)			Average annual growth rates of food production (%)		
			1961-70	1968-71	1970-72	1961-70	1968-71	1970-72
Chad	92	46	0.3	-1.6	-1.5	-0.4	-0.7	-2.6
The Gambia	85[a/]	56	n.a.	4.8	n.a.	...	...	...
Mali	91	43	1.5	5.5	1.4	1.2	5.0	0.0
Mauritania	87	38	2.2	2.8	0.5	2.2	2.7	0.4
Niger	93	58	3.0	0.9	-0.5	2.9	0.9	-0.5
Senegal	80	32	-1.9	4.7	1.3	-2.0	3.4	0.0
Upper Volta	87	49	4.1	1.7	2.5	3.9	1.4	1.3
Total of above	88	42	1.6	2.3	0.6	1.4	2.2	-0.3
Total developing countries	65	27	2.9	3.1	0.4	3.0	3.1	0.4

SOURCES: The Sahelian Office and UNCTAD based on United Nations, Implementation of the International Development Strategy, Vol. I; United Nations Economic Commission for Africa, Survey of Economic Conditions in Africa, 1971; FAO, Production Yearbook, 1972.

a/ Chiefly self-employed farm families and fishermen.

ANNEX

TABLE 5

Growth and level of manufacturing production, gross domestic investment and gross domestic savings

Country	Growth and level of manufacturing		Gross domestic investment		Gross national savings as per cent of GDP	
	Share of manufacturing in GDP 1970	Growth rate of real GDP arising in manufacturing 1960-69	Share in GDP 1970	Real growth rate 1960-69	Average 1968-70	Average annual change 1960-70
Chad	8	5.2	12.7	2.7	-2.8	-0.7
The Gambia[a/]	3					
Mali	12	6.5	14.1	8.8	11.9	0.6
Mauritania	2	12.2	27.9	2.9	23.0	3.0
Niger	6	4.1	20.2	6.6	1.3	-1.2
Senegal	16	5.3	15.3	5.3	4.3	-0.2
Upper Volta	10	1.5	20.3	11.2	8.9	0.7
Total of above	11	5.0	17.4	6.1	6.9	0.2
Total developing countries	18	7.1	17	6.9	16.2	0.2

SOURCE: UNCTAD based on United Nations, Implementation of the International Development Strategy, Vol. I; United Nations Economic Commission for Africa, Survey of Economic Conditions in Africa, 1971 Part I and II.

a/ Sahelian Office - estimate.

ANNEX

TABLE 6

Exports, imports and balance of trade

Country	Exports[a/] (value) 1970	Imports[b/] (value) 1970	Trade balance 1970	Share of exports in GNP 1970	Share of imports in GNP 1970	Growth rates of export value 1960-62/ 1968-70	Growth rates of export value 1968/ 1970	Growth rates of import value 1960-62/ 1968-70	Growth rates of import value 1968/ 1971
	(in thousands US dollars)			(in per cent)		(in per cent)		(in per cent)	
Chad	24,710	55,723	-31,013	11.6	23.6	7.4	-1.0	7.2	22.2
The Gambia	14,700	20,500	- 5,800	32.0[d/]	44.0[d/]	n.a.	-0.4	n.a.	-0.6
Mali	35,456	44,799	- 9,343	6.5	9.2	6.6	47.1	1.0	14.1
Mauritania	88,849	55,855	32,994	49.4	31.1	54.5	7.7	5.2	17.7
Niger	31,623	58,368	-26,745	10.2	18.4	7.2	9.4	12.1	8.7
Senegal	160,581	192,429	-31,848	21.7	27.6	2.7	-6.1	3.9	6.6
Upper Volta	18,200	46,659	-28,459	5.9	15.4	18.9	-8.7	7.6	7.6
Total of above	359,414	453,833	-94,419	15.6	20.4	8.4	2.1	5.2	10.4
Total of Developing Countries	54,430[c/]	58,320[c/]	- 3,890[c/]	15.2	15.4	7.4	11.7	6.5	11.5

SOURCE: Special Sahelian Office and UNCTAD Secretariat, based on data from United Nations Monthly Bulletin of Statistics; United Nations Yearbook of International Trade Statistics 1970-71; national sources, OECD Overall Trade by Countries, Series A.

a/ F.O.B. values

b/ C.I.F. values

c/ Total in millions US dollars

d/ Estimated from official figures as share of GDP for the year 1970/1971.

ANNEX

TABLE 7

Share of food imports[a/] in total imports

COUNTRY	1968	1969	1970
	(in thousands US dollars)		
Chad			
total food imports	4,292	9,629	11,202
total imports	33,469	46,629	55,723
share of food imports in total imports (per cent)	12.8	20.9	20.1
The Gambia			
total food imports	5,500	5,100	5,200
total imports	22,400	16,900	20,500
share of food imports in total imports (per cent)	24.6	30.1	25.4
Mali			
total food imports	7,626	6,101	12,897
total imports	34,298	38,912	44,799
share of food imports in total imports (per cent)	22.2	15.7	28.8
Mauritania			
total food imports	9,071	45,174	13,077
total imports	35,298		55,855
share of food imports in total imports (per cent)	25.7		23.4
Niger			
total food imports	5,651	6,547	8,277
total imports	41,471	48,700	58,368
share of food imports in total imports (per cent)	13.6	13.4	14.2

/...

ANNEX

TABLE 7 (cont'd)

Share of food imports[a/] in total imports

COUNTRY	1968	1969	1970
	(in thousands US dollars)		
Senegal			
total food imports	67,335	67,949	55,617
total imports	180,381	198,648	192,429
share of food imports in total imports (per cent)	37.3	34.2	28.9
Upper Volta			
total food imports	8,815	9,527	9,524
total imports	41,003	49,834	46,659
share of food imports in total imports (per cent)	21.5	19.1	20.4

SOURCE: Special Sahelian Office, based on United Nations, Yearbook of International Trade Statistics 1970-1971

a/ Includes, according to Standard International Trade Classification, revised (0+1+4) food and live animals; beverages and tobacco; animal, vegetable oil and fat (0+1+4). Food and total imports, C.I.F. values.

ANNEX

TABLE 8

Share of livestock exports in GDP and total exports

	1966	1967	1968	1969	1970	1971	1972
CHAD[a/]				(thousands U.S. dollars)			
Exports of live animals and products	9,150	8,840	7,550	9,380	13,630	13,350	13,060
Total exports	26,000	30,000	32,500	37,700	34,700	35,900	37,600
GDP		225,000					
Exports of live animals and products as a percentage of:				(in per cent)			
total exports	35.2	29.5	23.2	24.9	39.3	37.2	34.7
GDP		3.9					
MALI[a/]				(thousands U.S. dollars)			
Exports of live animals and products	12,010	14,280	10,800	20,600	19,880	17,530	16,150
Total exports	19,500	26,500	19,000	29,000	31,800	30,000	30,500
GDP		371,000					
Exports of live animals and products as a percentage of:				(in per cent)			
total exports	61.6	53.9	56.8	71.0	62.5	58.4	53.0
GDP		3.8					
MAURITANIA[a/]				(thousands U.S. dollars)			
Exports of live animals and products	14,700	15,000	14,670	14,640	14,400	14,500	14,600
Total exports	69,230	72,020	71,760	77,800	95,930	98,410	
GDP			191,000				
Exports of liveanimals and products as a percentage of:				(in per cent)			
total exports	21.2	20.8	20.4	18.8	15.0	14.7	
GDP			7.7				

.../

TABLE 8 (cont'd)

Share of livestock exports in GDP and total exports

	1966	1967	1968	1969	1970	1971	1972
NIGER[a/]				(thousands U.S. dollars)			
Exports of live animals and products	13,490	13,850	14,470	15,060	15,630	16,160	
Total exports	46,700	43,500	39,000	35,000	42,000	50,000	16,680
GDP	389,000	395,000	387,000	352,000			
Exports of live animals and products as a percentage of:				(in per cent)			
total exports	28.9	31.8	37.1	43.0	37.2	32.3	
GDP	3.5	3.5	3.7	4.3			
SENEGAL [a/]				(thousands U.S. dollars)			
Exports of live animals and products	1,230	1,010	720	400	400	300	280
Total exports	148,900	137,300	151,300	123,600	152,000	130,000	170,000
GDP	811,000	787,000	833,000	802,000		689,000	
Exports of live animals and products as a percentage of:				(in per cent)			
total exports	.8	.7	.5	.3	.3	.2	.2
GDP	.2	.1	.1				
UPPER VOLTA[a/]				(thousands U.S. dollars)			
Exports of live animals and products	10,790	11,680	12,840	10,010	7,370	9,530	8,260
Total exports	16,600	19,100	22,700	23,000	20,000	20,000	
GDP	236,000		316,000				
Exports of live animals and products as a percentage of:				(in per cent)			
total exports	65.0	61.2	56.6	43.5	36.9	47.7	
GDP	4.6		4.1				

SOURCES: UNCTAD, based on data from: FAO Trade Yearbook 1972; United Nations National Accounts Statistics 1971; Economic Intelligence Unit 1972; International Financial Statistics, May 1973

a/ Official export data adjusted to include unrecorded exports of live animals

ANNEX

TABLE 9

Net flow of loans and grants[a/]

COUNTRY	Totals				Per capita				Net flow as share of GNP 1971[b/]	Net flow as share of imports 1971	Net flow as share in gross investment 1971
	Average 1965-68	1969	1970	1971	Average 1965-68	1969	1970	1971			
	(millions US dollars)				(US dollars)				(in per cent)	(in per cent)	(in per cent)
Chad	23.47	21.99	21.26	29.28	6.9	6.1	5.7	7.7	11.3	47.2	86.1
Mali	20.42	20.82	20.11	36.82	4.4	4.3	4.0	7.2	7.2	66.9	96.9
Mauritania	8.76	18.52	17.63	4.77	8.0	16.2	15.1	4.0	2.7	8.4	8.2
Niger	22.38	36.01	45.06	49.48	6.1	9.2	11.2	12.0	15.7	91.6	76.1
Senegal	50.16	49.12	40.76	58.49	14.0	13.0	10.37	14.5	8.4	26.8	47.9
Upper Volta	19.14	24.03	21.89	29.29	3.8	4.6	4.1	5.3	9.6	58.6	53.3
Total of above[c/]	144.33	170.49	166.71	208.13	6.7	7.5	7.2	8.8	9.2	41.8	55.9
Total Developing Countries	7566.98	8662.29	9570.55	11366.89	4.8	5.2	5.7	6.5	3.2	18.5	(18.9)

SOURCE: UNCTAD, based on OECD/DAC statistics.

a/ Bilateral and multilateral official loan and grant receipts plus guaranteed private export credits (data on a net disbursement basis).

b/ 1970 GNP and gross investment figures used as denominator.

c/ Excluding approximately $US 40 million per year in recent years from France to the following five least developed countries: Chad, Mali, Niger, Upper Volta and Dahomey. The available data do not show the allocation among them.

ANNEX

TABLE 10

Sources of Government revenue, 1971

Country	Tax Share in GDP	Direct Taxes	Production and Consumption Taxes	Export and Import Taxes	Others
	(in per cent)	(distribution in per cent)			
Chad	17.1	28.7	16.4	45.2	9.6
The Gambia	23.1	6.6	13.1	55.2	25.1
Mali	13.4	17.6	32.8	35.2	14.5
Mauritania	16.6	19.9	8.7	54.0	17.5
Niger	12.9	27.6	17.6	36.3	18.4
Senegal	18.7	23.3	22.0	46.9	7.8
Upper Volta	10.8	21.9	20.0	45.0	13.1

SOURCE: Sahelian Office and UNCTAD Secretariat, from UNCTAD Foreign Trade sector analysis, ST/SSO/12, page 8.

ANNEX

TABLE 11

Average amount of loans and grants received (and grant element[a/]) by the Sudano-Sahelian countries[b/], 1965 to 1968 and 1969 to 1972

(in $US millions)

Country	4-year averages			
	Loans received[d/]	Grants received[c/]	Grant element %	
			Loans	Loans and grants
Chad				
1965 to 1968	7.4	13.1	39	78
1969 to 1972	2.7	28.6	67	97
Mali				
1965 to 1968	17.1	11.5	69	82
1969 to 1972	12.9	28.6	80	94
Mauritania				
1965 to 1968	5.4	6.9	32	70
1969 to 1972	14.9	10.0	69	81
Niger				
1965 to 1968	10.9	15.6	41	76
1969 to 1972	16.6	29.3	66	88
Senegal				
1965 to 1968	22.6	33.9	46	78
1969 to 1972	25.9	49.4	44	81
Upper Volta				
1965 to 1968	2.7	14.0	42	91
1969 to 1972	8.4	27.5	60	91

SOURCE: World Bank Annual Report 1974, Table 10

a/ The grant element is the face value of loan commitments less the discounted present value of the future flow of repayments of principal and interest, using the customary rate of 10% and expressed as a percentage of face value.

b/ Excludes Gambia for which figures are not available.

c/ Data for grants are taken from OECD (DAC) and Inter-American Development Bank sources. Included are grant-like flows (loans repayable in local currencies), bilateral grants, and UN agency grants. Figures for grants are on a disbursed basis, while figures for loans are on a commitment basis. The grant element of a grant is 100%.

d/ Excluded from this column are loans, for which repayment terms are not available and which could not, therefore, be used in the grant element calculations: 1965 to 1968 average of $US 205.6 million or 2.4%; 1969 to 1972 average of $US 257.4 million or 1.9%.

ANNEX

TABLE 12

Share of fuel imports in total imports[a/]

COUNTRY	1968	1969	1970
	(total and fuel imports in thousands US dollars)		
Chad			
fuel imports	5,528	7,596	8,621
total imports	33,469	46,160	55,723
fuel imports as percentage of total imports	16.5	16.5	15.5
The Gambia			
fuel imports	600	600	600[b/]
total imports	22,400	16,900	20,500
fuel imports as percentage of total imports	2.8	3.6	2.9
Mali			
fuel imports	2,662	3,435	4,007
total imports	34,298	38,912	44,799
fuel imports as percentage of total imports	7.8	8.8	8.9
Mauritania			
fuel imports	2,616		4,322
total imports	35,298	45,174	55,855
fuel imports as percentage of total imports	7.7		7.7

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ANNEX

TABLE 12

Share of fuel imports in total imports[a/] (cont'd)

COUNTRY	1968	1969	1970
	(total and fuel imports in thousands US dollars)		
Niger			
fuel imports	2,320	2,067	2,318
total imports	41,471	48,700	58,368
fuel imports as percentage of total imports	5.6	4.2	4.0
Senegal			
fuel imports	5,556	14,842	9,621
total imports	180,381	198,648	192,429
fuel imports as percentage of total imports	3.1	7.5	5.0
Upper Volta			
fuel imports	2,762	3,300	3,825
total imports	41,003	49,834	46,659
fuel imports as percentage of total imports	6.7	6.6	8.2

Note: Fuel as defined by the Standard International Trade Classification revised (3-3325).

SOURCE: Special Sahelian Office based on United Nations Yearbook of International Trade Statistics 1970-1971, and Commodity Trade Statistics, Statistical Papers, Series D.

a/ Special Imports C.I.F. values.

b/ Petroleum and petroleum products only.

ANNEX

TABLE 13

Technical assistance disbursements

(Bilateral contributions from DAC member countries plus contributions from multilateral agencies)

Country	Totals				Per capita			
	Average 1962-66	1969	1970	1971	Average 1962-66	1969	1970	1971
	(in million US dollars)				(US dollars)			
Chad	1.6	10.8	9.7	12.3	0.5	3.0	2.6	3.2
Mali	2.9	7.1	7.7	9.3	0.7	1.4	1.5	1.8
Mauritania	0.4	5.0	4.2	4.6	0.4	4.4	3.6	3.8
Niger	2.0	11.8	12.9	11.9	0.6	3.0	3.2	2.9
Senegal	2.6	21.2	20.1	20.2	0.8	5.6	5.1	5.0
Upper Volta	2.6	9.5	8.0	9.6	0.5	1.8	1.5	1.7
Total of above	12.1	65.4	62.6	67.9	0.6	2.9	2.7	2.9
Total Developing Countries	1080.7	1838.4	1794.2	2051.9	0.7	1.1	1.1	1.2

SOURCE: UNCTAD Secretariat, based on United Nations, OECD/DAC Statistics

ANNEX

TABLE 14

Sectoral composition of national development plans

Country	Total investment planned	Agricultural and rural development	Mining Industry and Energy	Economic infra-structure[a]	Health Welfare Education	Administrative services and other
		(as a per cent of total planned investment)				
Chad (in billions CFA francs)						
1966-1970 Plan - original estimate	47.2	28.4	14.1	33.5	23.5	0.5
1966-1970 Plan - revised estimate	26.2	31.8	16.6	28.4	22.1	1.1
1971-1980 Targets (tentative)[b]	57.8	36.2	11.6	42.7[c]	9.5	2.0
Gambia (in millions dalasi)						
2nd Development Programme 1967/68-70/71	22.9	14.0	25.0	39.0	17.0	5.0
3rd Development Programme 1971/72-73/74	26.8	21.0	7.7[d]	54.0	9.1	8.2
Mali (in millions Mali francs)						
1970-1973 Plan - original estimate	77.6	25.8	19.4	32.1	12.9	10.0
1970-1973 Plan - revised estimate	99.4	23.9	24.0	33.1	13.5	5.5
Mauritania (in billions CFA francs)						
1970-1973 Plan - revised estimate	55.0	16.5	33.4	33.9	16.2[k]	[l]
Niger (in billions CFA)[e]						
Public investment expenditure 1967/68-70/71	19.2	32.0[f]	3.0[g]	33.0	14.0	18.0
Senegal (in billions CFA francs)						
3rd Development Plan (revised) 1969/70-72/73	121.9	26.7	18.2[h]	19.4[i]	25.2	10.5
4th Development Plan 1973/74-76/77	177.4	25.4	16.9[h]	35.1[i]	15.3	7.3
Upper Volta (in billions CFA francs)						
1967-1970	27.5	26.0	20.0	30.2	17.8	3.8
1972-1976	63.2	30.0	20.6	28.8	13.4	7.2

SOURCE: Special Sahelian Office, based on official data from various sources.

Footnotes (see next page).

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TABLE 14 (cont'd)

Sectoral composition of national development plans

(footnotes)

a/ onomic infrastructure" includes transportation and communication.
b/ rity I - public investment only - targets being revised.
c/ ludes 10 per cent for "public utilities".
d/ ludes estimate of two per cent for manufacturing, included in the plan in Agriculture.
e/ ual public investment within the framework of 10-year "Development Perspectives".
f/ ludes water resources development.
g/ ing exploration was chiefly financed by private investment not included here.
h/ ufacturing only.
i/ which 5.8 per cent was for tourism.
j/ which 15 per cent was for housing and water development and 13.0 per cent for tourism.
k/ ludes defense (5.8 per cent), information and miscellaneous (4.3 per cent).
l/ luded in other sectors.

ANNEX

TABLE 15

Development plan performance

(Planned and actual investments)

	Planning Period	Planned Investments	Actual Investments	Financing Secured	Implementation Ratio (Per cent)
) (in billion CFAF)	1966-1970	26.2[a]	26.2	n.a.	100[a]
GAMBIA (in thousand dalasi)	1967-1971	22.9	16.9	n.a.	73.7
Economic Services		17.5	13.6	n.a.	77.8
Social Services		2.5	1.4	n.a.	55.5
Administrative Services		2.9	1.9	n.a.	
I (in billions of Mali francs)	1970-1973	99.4[b]	39.9	67.4	40.2
RITANIA (in billion CFAF)	1970-1973	55.0[c]	33.7	27.7	50.3
Rural development		5.3	1.9	3.8	35.3
Infrastructure		19.6[c]	9.0	10.6	46.1
Mining and Industry		19.9[c]	14.8	15.3	74.3
EGAL (in billion CFAF)[d]	1969-1973	93.0[d]	58.0[e]	n.a.	62.0
Rural sector		32.8	25.2	n.a.	77.0
Education, Health, Housing		20.0	12.8	n.a.	64.0
Transport, Information		16.8	9.2	n.a.	54.0
ER VOLTA (in billion CFAF)	1967-1970	33.6	19.7	23.7	59.0
Primary Sector		9.1	4.3		47.0
Industry and Services		6.0	4.0		66.0
Economic Infrastructure		11.4	5.8		51.0
Social Infrastructure		4.9	4.1		84.0

RCE: Special Sahelian Office, based on National Development Plans and national Government accounts.

: Sector information is selected and does not always add up to the total indicated.

notes on next page.

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ANNEX

TABLE 15 (cont'd)

Development plan performance)

(footnotes)

Revised plan; original development plan foresaw total investments of CFAF 47.0 billion. Revised distribution among sectors increased share of production to 48 per cent diminishing that of infrastructure to 28 per cent (mainly roads).

Revised estimates; financing secured and actual investments are shown as of June 1972.

Revised estimates; original plan foresaw investments amounting to CFAF 47.1 billion. Investments in mining and infrastructure were raised substantially.

Revised estimates - public sector only.

Includes actual investments of CFAF 27.4 billion during the first two years of the plan and estimates of actual expenditure of CFAF 30.6 billion for the last two years (1971-1973) of the plan.

ANNEX

TABLE 16

External public debt outstanding by country and type of creditor as of 31 December 1972

($US millions)

Country	Disbursed only	Including undisbursed					
		Total	Bilateral Official	Multilateral	Suppliers'	Banks	Other
had	18.3	27.2	11.1	11.8	3.5		0.8
he Gambia	10.8	14.6	11.2	3.4			
ali	262.0	324.0	282.2	29.0	12.1	0.7	-
auritania	36.4	82.3	63.3	17.6	1.4	-	a/
iger	48.4	70.2	47.8	16.0	6.4	-	
enegal	112.9	191.0	85.4	60.1	18.7	-	26.8
pper Volta	19.0	41.2	22.0	17.9	1.3	-a/	a/

/ Less than 50,000

URCE: World Bank, Annual Report 1974, Table 5.

ANNEX

TABLE 17

Service payments on external public debt
as percentage of exports of goods and non-factor a/ services
1970-1972

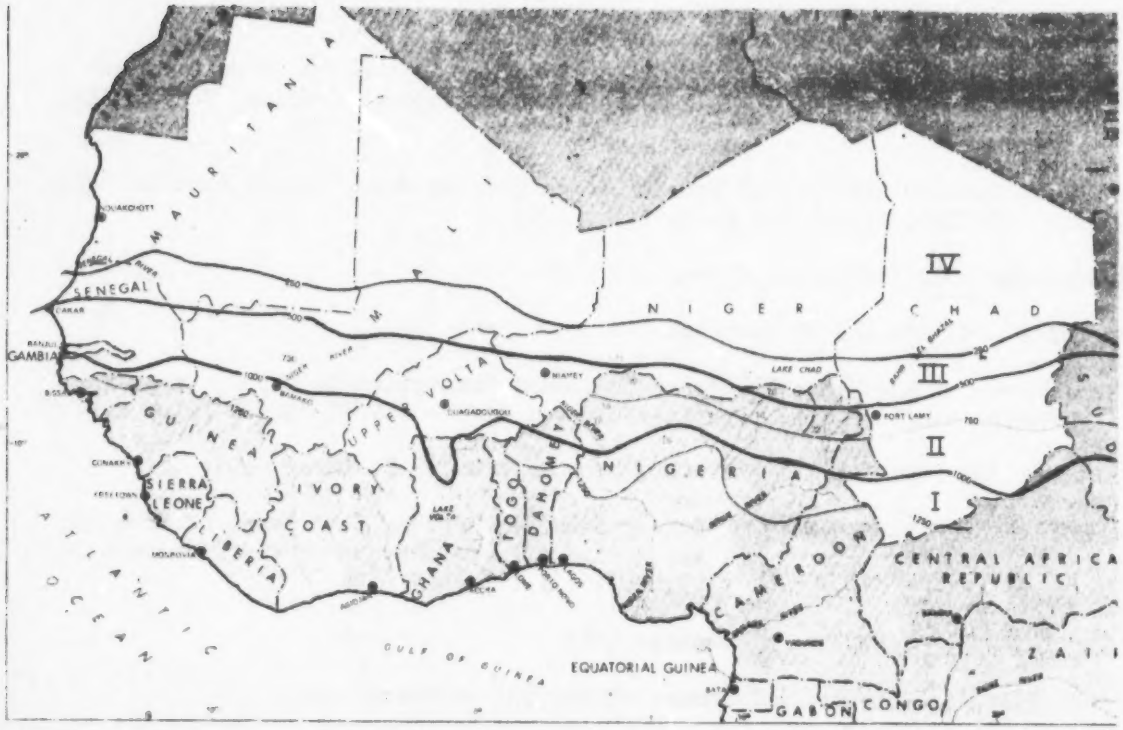
	1972	1971	1970
Chad	4.8	7.7	3.2
The Gambia	1.6	1.1	0.7
Mali	1.3	0.7	1.7
Mauritania	5.8	3.1	3.2
Niger	6.5	6.1	3.9
Senegal	4.2	6.0	2.3
Upper Volta	4.4	5.0	6.9

Note: Debt-service ratios are based on debt service actually paid as reported by the countries and not on contractual debt service due. If a country did not pay the entire debt service due during a year, this may be reflected in a lower debt-service ratio than would have been the case if contractual debt service had been used in computing the ratio. The debt-service ratio is, by itself, an inadequate and incomplete indicator of a country's debt situation. Many other factors must also be considered, such as the stability and diversification of the country's export structure, the prospects for future growth, the extent to which imports can be reduced without adversely affecting current production, the time profile of the country's debt outstanding, the size of foreign-exchange reserves and available compensatory financing facilities, and the debt-service record of the country. For these reasons, international comparisons of debt-service ratios have only limited meaning.

a/ Except where otherwise indicated, includes all goods and non-factor services. Data for some countries are partially estimated.

SOURCE: Sahelian Office and World Bank, Annual Report, 1974, Table 6.

THE SUDANO-SAHELIAN REGIONS OF WEST AFRICA



SOURCE: Economic and Social Council document E/ICEF/L.1291/Add.1, 3 May 1974, page 4.

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EDUCATION, UNESCO, ST/SSO/14/Rev.1, 9 January 1974

ENERGY, Outline Analysis of Energy Sector, Sudano-Sahelian Region, Department of Economic and Social Affairs, Resources and Transport Division, ST/SSO/22, 6 March 1974

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